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PREFILED EVIDENCE OF**UNION GAS LIMITED****NATURAL GAS ELECTRICITY INTERFACE REVIEW****POWER SERVICES EVIDENCE****1. INTRODUCTION**

On November 21, 2005 Board staff issued the Natural Gas Electricity Interface Review (“NGEIR”) report highlighting potential issues to be dealt with as part of a generic hearing. After receiving comments from interested parties, the Board issued a Notice of Proceeding on December 29, 2005 regarding the generic hearing. Subsequent to the Notice of Proceeding, two Procedural Orders were issued. Procedural Order No. 2, Appendix C, identified four issues for this Proceeding. These issues were:

- I. Rates for gas-fired generators (and other qualified customers)
- II. Storage Regulation
- III. Transportation Capacity bidding process and allocation
- IV. Enbridge rates for large volume customers (Rate 300 Series)

In response to Issue Number I, rates for gas-fired generators (and other qualified customers), Union and Enbridge are required to file mandatory evidence (Appendix A of Procedural Order No.2) on a proposed tariff associated with the provision of the following services:

- 1) More frequent nomination windows for distribution, storage and transportation that correspond with the nominations of upstream pipelines that connect to the Ontario gas system.

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1 2) Firm high deliverability service from storage with customer options for 1.2%, 5% and
2 10% deliverability.

3 3) Gas storage and distribution offered as discrete services.

4 4) Inter-franchise movement of gas (i.e., the ability to access services across Ontario,
5 whether to a customer's own account or as a sale to a third party).

6 5) Redirection of gas to a different delivery point on short notice (i.e., the ability to redirect
7 or acquire gas on short notice to a different delivery point).

8 6) The ability to transfer the title of gas in storage (i.e., the title transfer in gas storage is
9 treated as an administrative matter instead of a physical withdrawal or injection of gas).

10

11 The proposed tariff should include the eligibility criteria, terms and conditions of service, and the
12 rates associated with each new service.

13

14 The rates for the firm high deliverability service from storage will need to reflect the following
15 three scenarios: (1) Current pricing (i.e., the customer has access to cost-based storage in
16 accordance with current allocation methodology, and market-based storage above that); (2) All
17 storage is priced at cost; and (3) All storage is priced at market prices.

18

19 For each of the new services, evidence addressing the following questions should be provided:

20 1) What are the operational implications / barriers (if any) of providing these new services?

21 How could these barriers be eliminated?

1 2) What are the costs and revenues associated with providing these new services?

2 3) What are the rate implications (if any) on other customer groups?

3 4) What is the expected timing regarding the implementation of the new services?

4

5 Union's service development to date along with its customer and stakeholder sessions, have
6 identified that few changes are needed for in-franchise¹ services. Accordingly, Union has
7 proposed no service changes in responding to the Board's direction but is proposing a
8 restructuring of the T1 rate to offer lower rates to large customers such as gas-fired power
9 generators. Union is also proposing some new services for ex-franchise² customers.

10

11 This evidence responds to the Ontario Energy Board ("OEB"); direction to address certain
12 aspects of the natural gas services offered to gas-fired power generators. The evidence also
13 proposes a redesign of Union's T1 rate schedule in response to the Board's Decision in RP-2005-
14 0222/EB-2005-0411 (Greenfield Energy Centre). As a result, Union is requesting Board
15 approval for the following items;

16

17 1) Changes to the M12 and C1 rate schedules to support services needed for more frequent
18 nomination windows for ex-franchise customers.

¹ In-franchise – Customers inside Union's franchise area. The in-franchise market consists predominantly of residential customers and has historically been considered to be the retail market.

² Ex-franchise – The ex-franchise market consists of storage services sold to those customers located outside Union's franchise area, including Ontario LDCs, marketers/brokers and end use customers located outside of Ontario, primarily in eastern Canada and the Northeast United States. This market is considered to be the wholesale market, since the majority of these customers are not end use customers but intermediaries.

1 2) A determination of the appropriate cost recovery mechanism for new costs associated
2 with providing the above new services.

3 3) Changes to the T1 rate schedule to make Union's tariff more robust against bypass.

4 A summary of Union's evidence is found below:

Service Characteristics	In-Franchise Services		Ex-franchise Services
	Bundled ³	Unbundled ⁴	
More frequent nomination windows	<ul style="list-style-type: none"> • Storage/consumption (no nomination required)⁵ • Receipts - current 4 windows <i>Ref: Tab 3 page 29</i>	Current 4 windows <i>Ref: Tab 3 page 29</i>	6 additional windows and new services <i>Ref: Tab 4 pages 9-13</i>
Firm higher deliverability	Already available <i>Ref: Tab 3 page 30</i>	Already available <i>Ref: Tab 3 page 30</i>	Already available <i>Ref: Tab 4 page 42</i>
Storage and distribution as discrete services	Already available <i>Ref: Tab 3 page 31</i>	Already available <i>Ref: Tab 3 page 31</i>	Already available <i>Ref: Tab 4 page 43</i>
Inter-franchise movement of gas	Already available <i>Ref: Tab 3 page 31</i>	Already available <i>Ref: Tab 3 page 31</i>	N/A
Redirection of gas on short notice	Already available <i>Ref: Tab 3 page 31</i>	Already available <i>Ref: Tab 3 page 31</i>	N/A
Ability to transfer title of gas in storage as an administrative matter	Administrative title transfers, subject to contract parameters <i>Ref: Tab 3 page 32</i>	Administrative title transfers, subject to contract parameters <i>Ref: Tab 3 page 32</i>	N/A

5
6 The evidence in this document, in response to Issue Number I, will discuss the existing services
7 that Union has available for both ex-franchise and in-franchise gas fired generators ("Power

³ Bundled Service - a service in which the demand for natural gas at a customer delivery point is met by Union using whatever resources/functions or combination of resources/functions (e.g. transportation, storage, daily nominations) are required

⁴ Unbundled Service – A service in which the demand for natural gas at a customer delivery point is met by the level of separate services and functions (e.g. transportation, storage space, storage injection/withdrawal, daily nominations) contracted to be available.

⁵ Storage market opportunities are nominated (after authorization received).

1 Customers”). These services have been used by existing Power Customers (both in-franchise
2 and ex-franchise) for many years.

3

4 In preparation for the NGEIR proceeding, Union reviewed the T1 service with its in-franchise
5 customers and concluded that this existing service meets the needs of those customers. This
6 evidence will review Union’s current suite of in-franchise services and highlight how these
7 services are effectively used by Power Customers.

8

9 Union also reviewed its current ex-franchise services with Power Customers and concluded that
10 some additional services may be of value. This evidence outlines Union’s proposals for four
11 new services for ex-franchise Power Customers (and other qualified customers). The services
12 were developed in response to input received during customer meetings and feedback provided
13 by customers. The four new services include:

14

15 1) The first new service, F24-T, responds to two of the stated needs of Power Customers.

16 Their needs to have additional nomination windows and to have access to their contracted
17 firm transportation capacity (between Dawn and Parkway) throughout the day.

18

19 2) Ex-franchise Power Customers also requested the flexibility to deliver gas to Dawn based

20 on their daily requirement using the industry standard hourly flow rate of 1/24th, and to

21 have Union re-deliver the same daily quantities to Parkway, but only during the hours

22 they expect to operate (i.e. a Power Customer would deliver to Union 48,000 GJ/d at

23 Dawn at a flow rate of 2,000 GJ/hr, but have Union deliver the same 48,000 GJ/d to

1 Parkway, over 12 hours at a flow rate of 4,000 GJ/hr.). Union's proposed Upstream
2 Pipeline Balancing Service ("UPBS") provides this service using Dawn storage.

3
4 3) The third request of ex-franchise Power Customers was the ability to start up on a firm
5 basis on short notice. Union's proposed Downstream Pipeline Balancing Service
6 ("DPBS") (at Parkway) will provide this capability. It also provides alignment with
7 TCPL's proposed FT-SN service.

8
9 4) Union's fourth proposed service is F24-S, or all day firm access to storage. The F24-S
10 storage service would be accessible on the additional nomination windows available to
11 F24-T customers. This maintains consistency between the two services.

12
13 Union plans to offer and operate the four new services under the C1 and M12 rate schedules.
14 Minor changes to the C1 rate schedule are required. Given the C1 rate schedule is a market
15 based tariff with range rates, Union can provide the Upstream Pipeline Balancing Service and the
16 Downstream Pipeline Balancing Service within this rate schedule. Union will need to amend
17 Schedule B of the C1 rate schedule to describe the nomination flexibility of the F24-S service.
18 Union is also proposing changes to the M12 rate schedule to add the F24-T service. These
19 changes include both the amendment of Schedule B to describe the nomination flexibility of the
20 F24-T service and the addition of a F24-T rate within the M12 rate schedule. Overall, Union
21 believes that these four additional services provide enhanced flexibility and respond to the Power
22 Customers stated needs.

1 To put the existing and new services in proper context, this evidence begins with a discussion of
2 the operation of Union's system within the North American market.

3

4 In response to Issue Number III, Transportation capacity bidding process and allocation, this
5 evidence will also discuss the appropriateness of allowing shippers to bid a premium on Dawn-

6 Trafalgar transportation services in Unions 2006 and 2007 open seasons.

1 **2. BACKGROUND**

2 Union's facilities are part of the broader North American natural gas market; integrated
3 both physically and operationally. As a result, Union needs to ensure that its facility
4 design and daily operations allow Union to operate and provide services within established
5 industry standards. This section of evidence provides a brief overview of;

- 6 A) North American Standards for natural gas;
7 B) Union's System Operations and how Union physically responds to changing
8 demands;
9 C) U.S. Pipeline experience with power services;
10 D) Independent Electricity System Operator's("IESO") requirements for Gas
11 Generators; and
12 E) Power Customer meetings recently held

13
14 This "Background" information is intended to put Union's existing and proposed new
15 services in proper context.

16
17 **A) NORTH AMERICAN STANDARDS FOR NATURAL GAS**

18 The North American natural gas system is a complex grid of natural gas pipelines and
19 storage facilities connecting multiple supply points to continent wide markets. The
20 infrastructure has been developed by hundreds of parties who deliver into gathering
21 pipelines in producing fields and field zones; who transport gas through interstate, inter-
22 provincial and intrastate pipelines; and who use services provided by Local Distribution
23 Companies ("LDCs") and storage companies. Most asset operators (pipelines, LDCs,

1 storage operators) interconnect with multiple parties. For example, at the western edge of
2 Union's franchise (including Dawn), Union interconnects with Panhandle Pipeline, Vector
3 Pipeline, Michcon, TCPL/GreatLakes, Bluewater Storage in Michigan, and Tecumseh
4 (Enbridge) storage in Ontario. Through integration of multiple assets in various locations
5 and under different ownership control, the North American natural gas system has become
6 the backbone of a well functioning continental marketplace.

7

8 The natural gas market in North America is very efficient. There are a number of factors
9 that contribute to this. The infrastructure as described above is one factor. As well, natural
10 gas trades daily on the New York Mercantile Exchange ("NYMEX"), with physical
11 delivery and pricing based on Henry Hub in Louisiana. This provides price transparency
12 and liquidity; key components of a competitive market. Trading centres have also
13 developed at other strategic points throughout North America – referred to as market hubs.
14 Typically, market hubs develop in areas where transmission and storage infrastructure are
15 well developed. At market hubs, many buyers and sellers come together to transact daily,
16 supported by infrastructure to physically move gas to market. All shippers and market
17 participants benefit by the natural gas market being liquid. Dawn, Ontario is considered a
18 very good market hub.

19

20 To further promote and support market efficiency, the industry has also developed a
21 number of standards that apply across North America (in contrast to the electricity market
22 that is for the most part limited in scope to regional markets). All shippers and market
23 participants benefit from these standards. The three key standards are; 1) the definition of
24 the gas day; 2) the accepted practice of scheduling the entire North American gas grid on
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1 consistent and standard four nomination windows and ; 3) the rateable flow of gas over
2 the gas day.

3

4 1) The first key standard is the definition of the gas day. Natural gas pipelines,
5 storage facilities and utilities across North America balance all supply and demand
6 on a daily basis at the end of the 24 hour gas day. Any daily imbalances between
7 pipelines and/or storage operators are calculated at the end of the gas day. The gas
8 day across North America begins and ends at 10:00 a.m. Eastern Clock Time
9 (ECT). This is in contrast to the electricity day in Ontario that begins and ends at
10 midnight Eastern Standard Time (“EST”).

11

12 2) The second key standard is the use of the same four North American Energy
13 Standards Board (“NAESB”) nomination windows to schedule the entire North
14 American gas system. A nomination is the daily request from the shipper to the
15 natural gas service provider (storage, transmission or utility operator) to access
16 some or all of the services they have contracted (e.g. withdraw/inject gas into
17 storage; transport gas from Dawn to Parkway; or accept gas arriving at a receipt
18 point). The entire North American gas industry currently operates using the same
19 four NAESB nomination windows.

20

21 The first nomination window is the “timely” window which closes at 12:45 p.m. on
22 the day before the gas day in which services are being requested. The next
23 window, the “evening” window, occurs at 7:00 p.m. ECT prior to the day of flow.

24 Both of these windows are effective the beginning of the next gas day (10:00 a.m.

1 ECT). The remaining two opportunities to nominate are within the gas day
2 (“intraday 1”) nomination due at 11 a.m. and effective at 6 p.m. and (“intraday 2”)
3 with the nomination due at 6 p.m. and effective at 10 p.m. (all times ECT). In total,
4 customers have four opportunities to nominate an increase or decrease to their
5 service requests before the end of the gas day. The four standard nomination
6 windows are illustrated in Table 1, in Tab 4, Page 10.

7
8 Upon receipt of a nomination at the timely window, there are six major steps
9 undertaken by Union before the nomination can be authorized and scheduled.

10 These steps are the same steps taken by all pipelines, storage companies, and LDCs
11 across North America.

12
13 i) Union must confirm that the nomination is within the contracted parameters. For
14 example, if a shipper requests transportation of 1,000 GJ from Dawn to Parkway
15 using an M12 transportation contract, Union must validate that the shipper has a
16 signed and executed M12 transportation contract which is valid during the same
17 time period as the nomination, and therefore has the appropriate contractual
18 entitlement.

19
20 ii) Union must validate the entire nomination to ensure that the sum of the deliveries
21 to Union by the shipper equals the sum of the deliveries to the shipper by Union at
22 each trading location. For example, if the shipper has nominated to transport
23 1,000 GJ from Dawn to Parkway, the shipper must also indicate that there is 1,000
24 GJ of supply at Dawn (either a withdrawal from storage, receipt from an

1 interconnecting pipeline or a purchase from a third party). This will ensure that
2 receipts and deliveries at Dawn are in balance. Subsequently, the shipper must
3 also indicate a destination for the gas delivered to Parkway (injection into a
4 balancing account, or delivery to an interconnecting pipeline or a sale to a third
5 party). This activity can be complicated by the fact that shippers must add
6 compressor fuel gas to their nominations to move gas on transportation systems
7 (for example shippers have to nominate fuel gas to Union at Dawn for quantities
8 transported between Dawn and Parkway). Validations can also be complicated by
9 simply converting from the units of measure used on U.S. pipelines to the units of
10 measure used on Canadian pipelines.

11
12 iii) For interruptible services, Union must confirm the availability of services. For
13 example, if a shipper requests transportation of 1,000 GJ from Dawn to Parkway
14 using an interruptible contract, Union would sum all of the requests for
15 interruptible services using the Dawn to Parkway route and compare the requests
16 to the capacity available. To the extent the total nominations for interruptible
17 service are less than the available capacity, all quantities would be scheduled. If
18 the total requests were greater than the available capacity, the total requested
19 capacity would be prioritized based on price and prorated to ensure total available
20 capacity is not exceeded.

21
22 iv) Upon completion of the previous steps, Union commences the confirmation
23 process with upstream and downstream interconnecting pipelines. Union and
24 each interconnecting pipeline compare the nominated activity at the respective

1 interconnect, confirming that the shipper's nomination to each pipeline is in
2 agreement. For example, if a shipper indicates to Union that it is delivering 1,000
3 GJ to TCPL at Parkway, TCPL must also confirm with Union that the same
4 shipper has placed a nomination with TCPL to receive 1,000 GJ at Parkway. If
5 there is a discrepancy in any of the above steps (this could be as simple as
6 correcting an energy conversion between U.S. and Canadian pipelines or
7 adjusting fuel ratios), Union will take action with the shipper and/or the
8 interconnecting pipeline operator to correct the transaction and continue with the
9 process. The process of correction requires direct communication with the
10 shipper and interconnecting pipeline operations and takes some time to resolve.

11
12 v) When the above steps have been completed and all outstanding issues have been
13 resolved, the total of the next day's activity is communicated to the operations
14 group to allow "scheduling" of the pipeline. The operations group will adjust
15 storage operations and compressor operations to ensure that the next day's gas
16 flows (both transportation and storage activity) are equivalent to the total
17 nominated activity at each location.

18 vi) Finally, Union notifies the shipper that the nomination has been scheduled and
19 that the gas will be received and delivered as requested.

20
21 All North American pipeline companies, storage companies, and LDCs use this
22 same process. The nomination process as described above, will typically take
23 Union four hours to complete for the timely window. A similar process is
24 undertaken at each of the three subsequent nomination windows (i.e. the evening,

1 intraday 1 and intraday 2 nomination windows). Given the timely window is used
2 to set up the system and the subsequent nomination windows are used to make
3 adjustments to the system, the time required to fully schedule the system for each
4 of the last three windows is less and typically takes three hours each.

5
6 3) The last key North American standard for natural gas is the rateable flow of gas.

7 When shippers nominate for the timely or evening window, the nomination is for a
8 daily total flow. Pipelines, LDCs, and storage operators then schedule the gas to
9 flow at an hourly flow rate of $1/24^{\text{th}}$ of the daily nomination. At intraday
10 nomination windows, the new nomination is affected over the remaining hours of
11 the day (i.e. at the 6 p.m. intraday nomination window, to be effective at 10 p.m.,
12 the flow is changed over the remaining 12 hours of the gas day).

13
14 The three standards identified above are fundamental to the successful operation of the
15 integrated North American system. These standards provide all pipelines, storage
16 providers, LDCs, and marketers/producers with the ability to align systems and gas flows
17 contractually, commercially and operationally.

18 When assessing any changes or modifications to NAESB standards, care must be taken to
19 ensure that all parties both upstream and downstream of the system for which a change is
20 contemplated are willing and able to operate on a similar basis. Without this consistency
21 amongst all parties, it becomes difficult for shippers to access integrated options. Further,
22 changes and additional flexibility upstream and downstream of Union's system are not
23 controlled by Union and generally encompass assets not regulated by the Ontario Energy
24 Board ("OEB").

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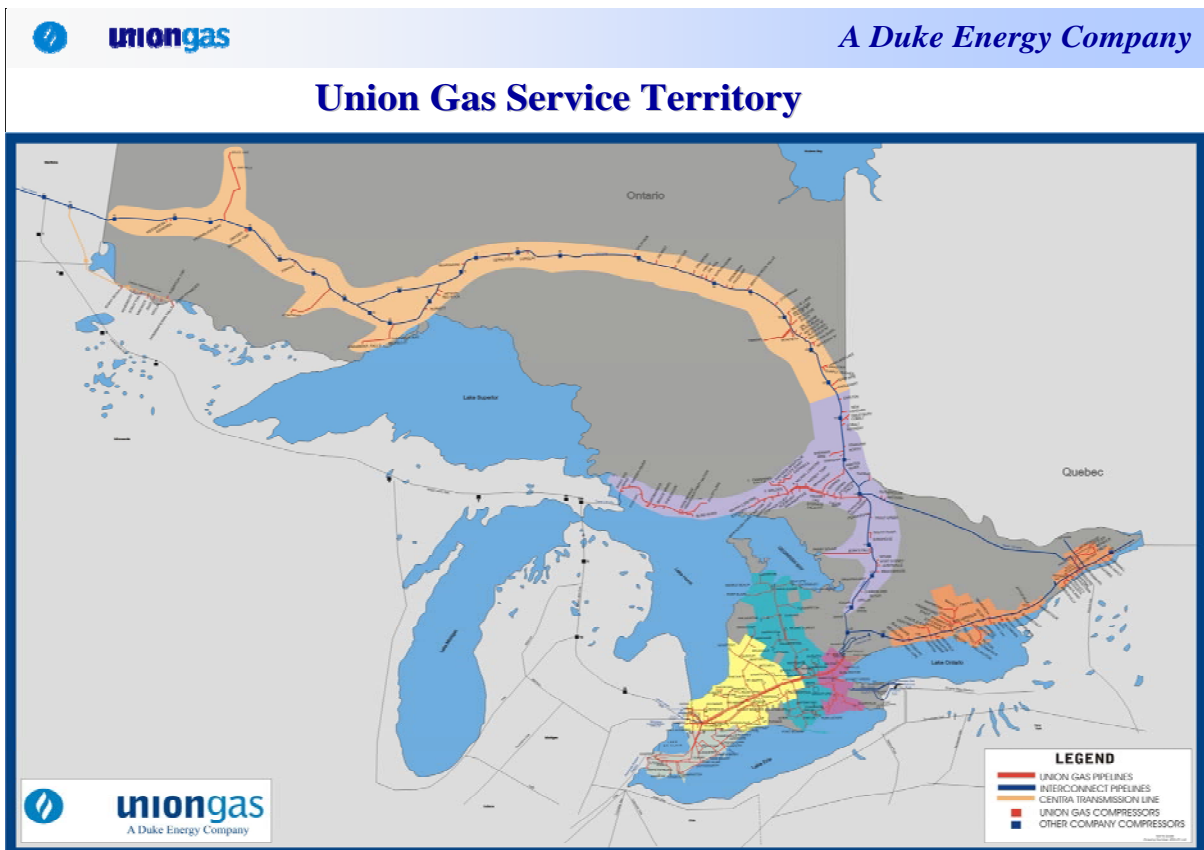
1 **B) UNION'S SYSTEM OPERATIONS**

2 Union is a major Canadian integrated natural gas utility that provides energy delivery and
3 related services to more than 1.2 million residential, commercial, and industrial customers
4 (in-franchise customers) in over 400 communities in northern, south-western and eastern
5 Ontario. Union's distribution operations extend throughout northern Ontario from the
6 Manitoba border to the North Bay/Muskoka area, through southern Ontario from Windsor
7 to just west of Toronto, and across eastern Ontario from Port Hope to Cornwall. Figure 1
8 is a map showing the Union Gas Franchise area.

9

10

Figure 1



11

12 Union also provides natural gas storage and transportation services to ex-franchise
13 customers including other utilities and energy market participants (including Power
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1 Customers) in Ontario, Quebec, and the United States. Union's storage and transmission
2 system is an important link in the movement of natural gas from both western Canadian
3 and U.S. supply basins to central Canadian and northeast U.S. markets.

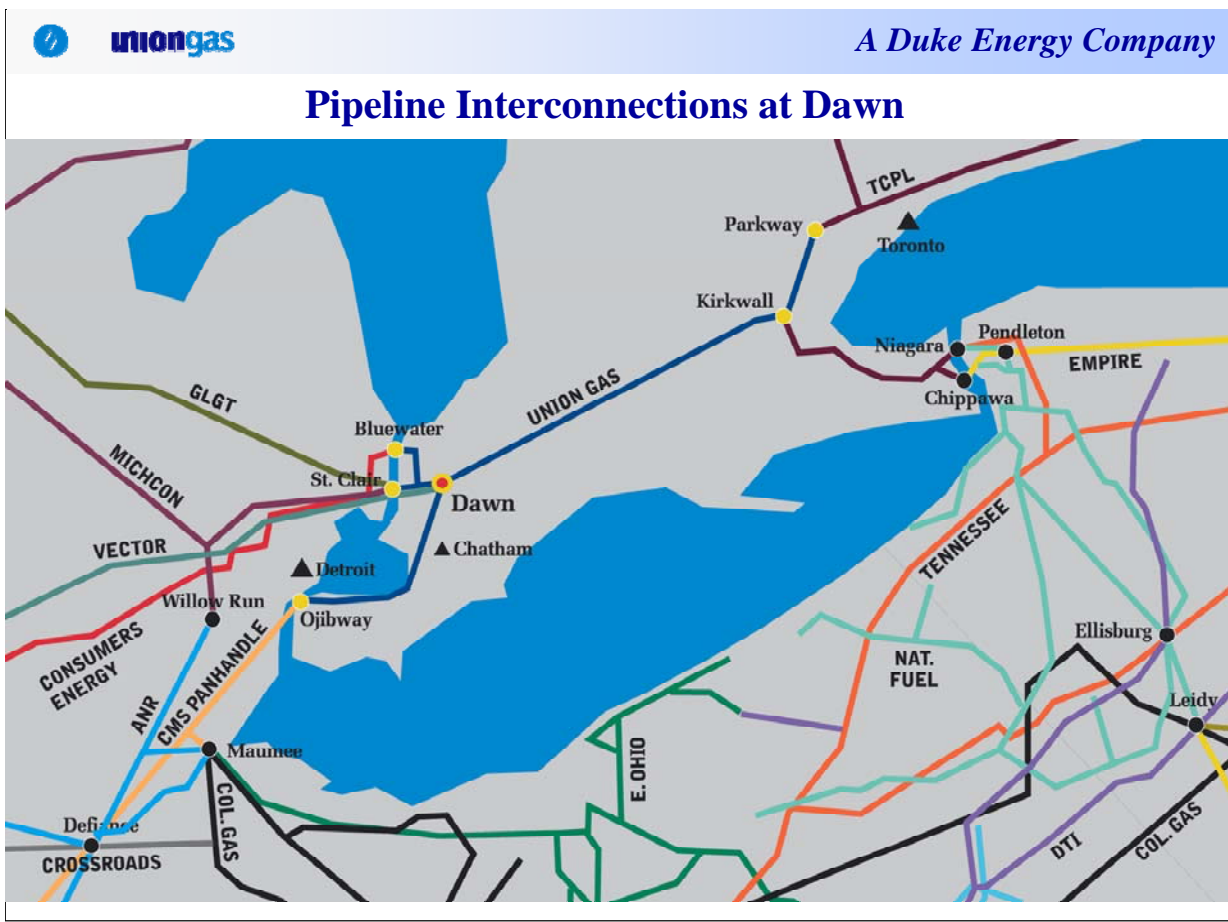
4
5 In terms of throughput, Union functions both as a transporter and a distributor of natural
6 gas. During the 2004 operating year, Union delivered 510 Bcf to in-franchise customers.
7 Union also provided transportation service to ex-franchise customers totalling 776 Bcf.
8 The total quantity (1.3 Tcf) is roughly equal to all the gas consumed in Ontario and
9 Quebec.

10
11 Union operates a distribution system consisting of over 28,200 km of distribution lines.
12 Union also operates a transmission system that consists of approximately 7,000 km of
13 high-pressure transmission lines (including storage transmission lines). The backbone of
14 the transmission system is a 228.29 km stretch of high-pressure pipe that runs from the
15 Dawn storage facility in the western end of the franchise to a junction with TCPL at the
16 Parkway compressor station near Toronto. On a peak day, the Dawn-Parkway system
17 effectively moves over 5 Bcf/day from Dawn to Canadian and U.S. markets in the east.

18
19 Union has underground storage facilities with a total capacity of approximately 150 Bcf
20 centered at Dawn. Union's Dawn complex is the largest natural gas storage facility in
21 Canada. In addition, the Enbridge/Tecumseh storage operations, having approximately 90
22 Bcf of storage capacity, tie directly into the Dawn facilities. Storage operations in
23 Michigan also have direct connections into the Dawn facility through the Vector,
24 Michcon/St. Clair and Bluewater pipelines. In total, in excess of 850 Bcf of storage
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1 capacity in the Ontario/Michigan area has access to Union’s Dawn complex. In the
 2 broader market, Dawn storage competes with storage in the Great Lakes and surrounding
 3 area (including Illinois, Indiana, New York and Pennsylvania) that totals 1,159.8 Bcf of
 4 storage capacity. The integrated storage and transmission facilities at Dawn have
 5 developed into a liquid trading hub, where customers can buy and sell natural gas services
 6 and commodity in an open and competitive market. Figure 2 is a map showing the Dawn
 7 to Parkway transmission system as well as Dawn and the significant number of
 8 interconnections in the area.

Figure 2



1 **Dawn-Trafalgar System Design**

2 Union's Dawn-Trafalgar system corridor has four compressor sites. At the western end is
3 the Dawn Compressor Station with nine compressors providing 129.1 MW of power. At
4 its eastern end, Union's Parkway Compressor Station has 8.8 MW of Power installed and
5 interconnects with TCPL and Enbridge. In between are the Lobo Compressor Station
6 located just west of London and the Bright Compressor Station located just east of
7 Woodstock, having 56.7 MW and 50.3 MW of power respectively.

8
9 The Dawn-Trafalgar system consists of two full loops of pipeline, nominal pipe size
10 ("NPS") 26 and NPS 34. A third loop of pipeline, NPS 42, only stretches from Dawn to
11 Kirkwall. Union is currently working on completing a fourth loop, NPS 48. This fourth
12 loop currently traverses approximately 70% of the corridor from Dawn to Kirkwall.

13
14 From Kirkwall to Parkway there are only the two completed loops (i.e. NPS 26 and NPS
15 34) plus a partial loop made up of NPS 48. This partial loop is missing only one section of
16 NPS 48 between Hamilton and Milton. Union's 2006 pipeline expansion includes the
17 completion of the Hamilton to Milton NPS 48 section. When this work is complete, the
18 third loop between Kirkwall and Parkway will be completed. In addition to providing an
19 increase in system capability, completing this loop will increase the integrity of the system
20 and security of supply at the eastern end of Union's system.

21
22 Compression on Union's Dawn-Trafalgar system plays a critical role in transporting
23 supply to eastern markets and interconnecting with the Dawn storage facilities.

24 Compression at Dawn is dual purpose. It can be used to move gas out of underground
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1 storage caverns or to compress gas that is transported along the Dawn-Trafalgar system.
2 Pipeline compression at Lobo and Bright serves to move supplies along the pipeline to the
3 export points at Kirkwall and Parkway. Compression at Parkway ensures minimum
4 delivery pressure commitments with interconnecting pipelines are met.
5 Natural gas under pressure is compressible, which means the higher the pressure, the more
6 natural gas can fit in a cubic meter of pipeline capacity. As the pressure in the pipeline
7 increases, the quantity of gas in the pipeline also increases. The quantity of gas in the
8 pipeline at any time is called “line pack”. The amount and location of line pack is variable
9 within the day and from day to day throughout the operating season, depending on the
10 varying demands on the system and operating pressures. If Union is aware of a future
11 demand, it can proactively plan the system to ensure that there is sufficient line pack
12 available in order to satisfy the daily requirement of the system.

13

14 **Typical System Operations – Operating within the North American Standards**

15 For daily operations of the system, Union has the following key objectives;

- 16 • Operate in a safe and reliable manner;
- 17 • Meet its contractual obligations;
- 18 • Operate in the most efficient and effective manner; and
- 19 • Maintain system integrity.

20

21 Given that Union’s operations are integrated with interconnected upstream and
22 downstream pipelines, Union must operate within NAESB standards. Union will utilize
23 compression and pipeline capacity to ensure that the system can meet daily load

1 requirements to maintain the delivery of natural gas to the delivery points, all within
2 NAESB standards.

3

4 On a daily basis, the system will be “set up” prior to the day’s demands in order to
5 optimize the use of compression at Dawn, Lobo, Bright and Parkway. On a normal winter
6 day, Union’s transmission and storage system experiences two demand peaks very similar
7 to those experienced on the electricity system; a large demand peak during the morning
8 hours and then a smaller peak in the late afternoon to early evening period.

9

10 In order to “set up” the storage and transmission system on a daily basis, Union’s Gas
11 Control Group develops a pipeline wide demand forecast. To develop this forecast the Gas
12 Control Group relies heavily upon nominated quantities, weather forecasts, and for in-
13 franchise contract customers, a combination of contract parameters, historical
14 consumption, and in some cases customer specific load profiles. During the gas day,
15 Union continues to monitor and adjust compression accordingly to meet changes in supply
16 and demand on the system.

17

18 Depending on the forecast levels of demand on the system, Union will have certain
19 pipeline compressors operating, while others will be available to be dispatched. Union
20 continually monitors the pressures and flows on the system during the day from its Gas
21 Control centre. Changes in weather and in-franchise demands are also monitored and
22 updated load forecasts are made throughout the day. Union manages the daily peaks, along
23 with other demand or flow changes, through incremental supplies from storage and the use
24 of its pipeline compression.

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1 In typical operations, when an adjusted rate is required at Parkway, either through
2 nomination changes or a shift in forecasted activity, Union will respond by adding
3 compression (Lobo, Bright) and incremental supply from storage at Dawn. Union requires
4 one hour to initiate increased compression and see increased pressures at Parkway.

5

6 The cornerstone of Union's natural gas operations is to preserve the reliability and integrity
7 of its storage, transportation, and distribution systems, to ensure security of supply and do
8 so in a safe manner. This is also a basic customer expectation of Union.

9

10 **Union's Response to Unexpected Changes in Supply or Demand**

11 Dramatic swings in supply or demand will impact other Union customers and
12 interconnecting pipelines if not managed properly.

13

14 If an unexpected demand comes on to the system at Parkway, that immediate demand
15 would be satisfied through a reduction in line pack (provided there was sufficient line pack
16 available at the time) and there would be an immediate and continuing reduction in the line
17 pressures at Parkway.

18

19 Union would respond in such a situation by adding pipeline compression (Lobo, Bright)
20 and incremental supply from storage at Dawn. It takes one hour to initiate increased line
21 compression and to begin to see the recovery of pressures at Parkway.

22

23 In a similar situation, when incremental demands are dispatched in advance from Gas
24 Management Services as a result of changing nominations from customers, the effective
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1 time to reset the system once the numbers have been processed to provide for those
2 demands is also one hour. It is extremely important for Union, as well as the
3 interconnecting pipelines, to have as much prior knowledge as possible of expected
4 demand increases in order to properly manage the supply system and ensure system
5 integrity for all customers.

6

7 On peak demand days, when Union's system is already operating near its limits (i.e.
8 minimum pressure) any sudden shift in demand can compromise the integrity and
9 reliability of the natural gas delivery system. If the system was compromised, Union could
10 be forced to curtail firm system loads to affect a system recovery, which could jeopardize
11 public safety and have significant economic consequences on Union's customers,
12 interconnecting pipelines, and Union.

13

14 **Upstream and Downstream Communications**

15 Today the control rooms of TCPL, Enbridge and Union enjoy an excellent level of co-
16 operation and communication that enables the natural gas infrastructure in Ontario to
17 operate effectively. It is anticipated that Ontario's increased reliance on natural gas fired
18 generation to serve its power needs, will mean all of the pipeline operators that service
19 Ontario will also need to be more informed about the electricity operations. Union, TCPL,
20 Enbridge and the IESO formed working groups in the summer of 2005 to evaluate,
21 recommend, and develop communication protocols between the electricity and gas
22 industries. The intent of these task teams is to extend this same level of cooperation and
23 communication that exists in the gas industry, to the electricity industry through the IESO.

1 This work is critical given the increasing dependence of Ontario's electricity system on
2 natural gas.

3
4 The work of the IESO Working Group is ongoing. More info about the teams including 1)
5 the Day Ahead Process Alternatives for Gas-Fired Generators and 2) the Charter of the Gas
6 Electricity Interface Working Group can be found on the Ontario Energy Board website at:
7 http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_ngfimp_gaselecwork
8 [inggroup.htm](http://www.oeb.gov.on.ca/html/en/industryrelations/ongoingprojects_ngfimp_gaselecwork)
9

10 C) **U.S. PIPELINE EXPERIENCE**

11 **Introduction**

12 While Ontario is increasing its dependence on natural gas fired generation, the U. S.
13 already has significant natural gas generating capacity in place. The U. S. has added
14 approximately 220,000 MW of gas-fired generation since January 1998. To provide the
15 Board and intervenors with a better understanding of North American pipeline practices,
16 Union conducted a high level review of tariffs for nine U.S. interstate and one intra-state
17 pipeline. The pipelines reviewed were: Vector, Texas Eastern, Trunkline, Iroquois Gas
18 Transmission, Empire State (an intra-state pipeline), Dominion, Florida Gas Transmission,
19 ANR, Great Lakes Transmission and Panhandle Eastern Pipeline. This list is not an
20 exhaustive list, but does represent a good cross section of pipeline tariffs. Union has
21 distinguished between:

- 22 • Services customers can access only if they are physically located on the
23 transmission pipeline. In Union's terminology this would effectively be services
24 offered to in-franchise customers; and

- 1 • Customers situated on downstream pipelines that interconnect with the
2 transmission company pipeline. In this case the primary pipeline will provide
3 services to the downstream pipeline customers. Again in Union’s terminology these
4 would be ex-franchise customers.

5
6 While there are some U.S. gas transmission pipelines that provide additional services for
7 in-franchise Power Customers, it was difficult to identify examples where flexibility
8 beyond the NAESB standards is offered to Power Customers located on downstream inter-
9 connecting pipelines. This is critical given that Union’s new ex-franchise power services
10 are intended for Power Customers located two pipelines away (i.e. gas must travel on
11 TCPL and Enbridge’s system to reach the Power Customers). Union, like many U.S.
12 pipelines, already offers enhanced services to in-franchise Power Customers. The
13 following section is an overview of the findings.

14
15 **Overview of Findings:**

16 The high level review of the tariffs of a number of U.S. natural gas transmission pipelines
17 resulted in the following important findings:

18 a) Nomination Windows: Few U.S. pipelines offer more than the standard
19 NAESB nomination windows. Seven of the ten pipeline tariffs surveyed limited
20 shippers to the four standard NAESB nomination windows. The most additional
21 nomination windows offered were three.

22 b) No Notice Service: The term No Notice Service has a specific meaning under
23 Federal Energy Regulatory Commission (“FERC”) Order 636 (issued in 1992)
24 which mandated that interstate pipelines offer a No Notice Service during

1 transition from bundled sales and transportation service to unbundled
2 transportation during the early 1990s. FERC required pipelines to provide a No
3 Notice Service to eligible customers in order to mitigate the concerns of
4 previously bundled customers (primarily local distribution companies serving
5 small volume retail customers) that they would be exposed to new risks of
6 curtailment due to factors beyond their control, such as intra-day load variation
7 due to weather. These No Notice Services typically have specialized restrictions
8 as to terms and conditions of service, and the capacity eligible for the service.
9 The most common restriction is that only certain classes of customers on the
10 pipeline system in the 1992 to 1993 period were eligible. No Notice Service is
11 typically not available to new customers.

12
13 It is important to distinguish the FERC mandated legacy No Notice Service,
14 documented in U.S. pipeline tariffs but not available to new customers, from
15 other flexible delivery services which are available for contracting today. Once
16 this distinction is made, the number of U.S. pipelines offering a true No Notice
17 Service is significantly reduced.

18
19 c) Short Notice Service: Many pipelines offer Short Notice Service. Of the ten
20 pipelines reviewed, six had a Short Notice Service. U.S. pipelines offering
21 (non- FERC Order 636 related) Short Notice Services to new customers
22 typically include restrictions. Some examples of restrictions include:

- 23 • The majority of pipelines require 2 or more hours of notice before new flow
24 rates become effective.

- 1 • One pipeline (Trunkline) only accepts such short notice nominations before
2 4:00 p.m. on the same gas day.
- 3 • The shipper may be required to hold storage service contracts on the same
4 pipeline (i.e. Trunkline, Dominion). The intra-day flow variations of the
5 shipper are facilitated, on a no-notice basis, by the pipeline injecting or
6 withdrawing from the customer's storage account, up to their contracted
7 storage entitlements.
- 8 • The shipper may be required to be connected directly to the transmission
9 facility and be equipped with a flow control valve (i.e. Vector).

10 All of these short notice services are likely of limited practical value for ex-
11 franchise customers since most interconnecting U.S. pipelines restrict flow
12 changes to the four NAESB standard nomination windows. This severely limits
13 the value of flexible upstream services for customers located on interconnecting
14 pipelines (ex-franchise customers).

- 15
- 16 d) No Customized Power Services on Some Pipelines: Not all U.S. pipelines offer
17 additional flexibility in their services for Power Customers beyond basic firm
18 and interruptible transportation service (for example - Empire Pipeline and
19 Florida Gas Transmission). Case in point is Florida Gas Transmission ("FGT")
20 which has a large gas fired generation load tied to its system, but no noticeable
21 special services for Power Customers. According to statistics available from
22 the Florida Public Service Commission, in 2002 the state's total generation
23 capacity was 47,054 MW. Natural gas fired plants accounted for 8.7% of the
24 total, while Dual Fired (Natural Gas and Oil) generation provided 43.8%.

1 Given most of the gas load is dual fuelled, Power Customers in Florida would
2 use a combination of firm and interruptible transportation services. All gas is
3 scheduled and flows on the four NAESB windows.

4

5 **Conclusions**

6 In Union's view, there appears at times to be a perception that U.S. transmission pipelines
7 offer unrestricted flexible services for power markets. The reality is that for the limited
8 number of U.S. pipelines that do offer short notice variable flow services also impose one
9 or more significant limitations on the use of these services. These limitations may include
10 requiring flow control valves; limiting flow variation to NAESB windows only; or a
11 mandatory requirement to contract for storage services with the pipeline. These service
12 conditions limit the flexibility and financial value of the services, particularly where the
13 power plants are located on interconnected downstream pipelines.

14 It is also important to consider electricity and gas market structures within different
15 jurisdictions. Market areas that have significant dual fuel equipment, or market areas
16 where generators are truly merchant and do not have to operate, would all have different
17 needs for services.

18

19 **D) IESO REQUIREMENTS FOR GAS GENERATORS**

20 **Introduction**

21 The Independent Electricity System Operator ("IESO") manages the Ontario power system
22 by balancing the demand of electricity against available supply through the wholesale
23 market, and directing the flow of electricity across the transmission system.

1

2 Gas-fired generators use day-ahead processes to procure their fuel supply, whereas the
3 Ontario power market operates in real-time. It is Union's view that the current IESO
4 scheduling process provides Power Customers advanced notice of the need to operate
5 during most operating conditions. Further developments to the scheduling function
6 (including the possible development of the Day Ahead Market) are expected to enhance
7 security of supply and provide Power Customers with an even better view of their expected
8 operation.

9

10 **IESO Scheduling Process**

11 The current scheduling process begins at 6 a.m. Eastern Standard Time (EST) the day
12 ahead of dispatch; the dispatch day beginning and ending at midnight EST. For example,
13 market participants can begin placing bids and offers on Monday at 6 a.m. (EST) for the
14 Tuesday dispatch day (18 hours ahead of the start of the electricity day). Based on this
15 process, market participants will receive an informational pre-dispatch schedule at noon
16 the day-ahead that provides an indication of their expected operations for that dispatch day.
17 The schedule is revised and reissued hourly by the IESO.

18

19 Bids and offers for energy can be adjusted without limitation or restriction up to 2 hours
20 ahead of any given dispatch hour. Therefore, as time approaches the dispatch hour,
21 schedules become more representative of demand and available supply, providing
22 generators with a very powerful price signal on which to manage their operations.

23

1 Although it is possible that actual dispatch will vary, it is Union's understanding that the
2 process accuracy three hours-ahead of the dispatch hour is very good. The Market
3 Surveillance Panel Report ("MSPR") for the period May 2005 – October 2005 provides
4 insight into the degree of scheduling error that would contribute to fuel balancing issues
5 for gas-fired generators. The measured variability of the 3-hour-ahead time points in the
6 dispatch schedule versus real-time (Table 1-22) is 1.6%. Assuming an average 17,700
7 MW of system demand, this implies that 3-hours ahead, the forecast demand error is on
8 average less than 300 MW/hour. Therefore, regardless of the amount of installed gas-fired
9 generation, only a very small fraction will be impacted in any given hour due to
10 fluctuations in actual demand versus forecasted demand.

11 A sudden outage of an existing operating unit or a sudden change in electricity demand,
12 system wide, may necessitate from time to time, a short notice change in the IESO's
13 supply mix. However, during normal operations, the load would be relatively predictable.

14

15 **The Spare Generation On-Line Program**

16 Typically fossil-based generation requires long and expensive start-up processes, and once
17 scheduled to run, might be dispatched off before recovering all their start-up costs. The
18 Spare Generation OnLine ("SGOL") Program was designed to provide a market incentive
19 and mechanism for generation to be made available and on-line when otherwise generators
20 might not commit their units. This is of particular importance during lower demand
21 periods such as off-peak hours and during the shoulder months of the year.

22

23 For gas-fired generators that participate in the SGOL Program, there is more certainty that
24 once they start up they will operate for at least their minimum run time, even if market
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1 demand changes unfavourably. Once the facility has been synchronized, it will be
2 instructed to ramp up to its minimum loading point. If energy from the generator is not
3 required by the market, it will at a minimum continue to run at its minimum loading point
4 until reaching its minimum run time.

5

6 **Changing Nature of the Electricity Market**

7 To better understand the longer-term implications of dispatching the power market on gas
8 supply needs, it is important to acknowledge the differences between existing and new gas
9 fired generation, and how new gas-fired generation will be contracted. It is also important
10 to understand that the IESO is committed to developing a Day Ahead Market.

11

12 i) Differentiation of Gas-Fired Generation

13 Today there is about 5,000 MW of installed gas-fired generation in the province that
14 operates quite well using existing gas services that can be grouped into four subsets,
15 namely:

16 1) About 1,600 MW of this capacity is under long-term power purchase
17 contracts with Independent Power Producers (“IPPs”). Typically these
18 generators are self-scheduling and operate in a base load mode. These
19 IPP generators are more likely to manage their gas supply (nominations,
20 supply, and daily balancing) in a manner similar to a large industrial
21 consumer.

22

23 2) About 2,100 MW of the capacity is represented by the dual-fuelled (gas
24 and oil) Lennox generating station. Lennox operates as a peaking plant

1 and manages its gas supply in a similar manner to other industrial
2 consumers that have back-up fuel capability. Although Lennox does have
3 a small amount of firm natural gas transportation capacity to the plant,
4 their gas load is predominantly served by interruptible transportation
5 service.

6
7 3) About 150 MW of the capacity is single cycle gas turbine (“SCGT”)
8 operating as peaking plants. Since they operate infrequently, scheduling
9 typically entails lining up short-term supply in response to day-ahead
10 schedules and managing small daily imbalances.

11
12 4) The remaining 1,100 MW of capacity comprises combined cycle gas
13 turbines; some of which provide steam and power to industrial
14 consumers. This capacity will operate less than the IPPs but more than
15 Lennox and other peaking units.

16
17 *ii) Contracting of New Gas-Fired Generation*

18 According to the OPA “Supply Mix Advice and Recommendations Report (December 9,
19 2005)”, the amount of gas-fired generation is expected to double over the next five-years
20 and reach 10,500 MW of installed capacity by 2015. The vast majority of this new
21 capacity, if not all, will be developed under long-term agreements that will dictate dispatch
22 behaviour financially or by direct instruction as provided for in the contract. Specifically:

1 Deemed Dispatch

2 The first major supply initiative undertaken by the Ontario Government that
3 included gas-fired generation was the 2,500 MW Clean Energy Supply Request for
4 Proposals (“RFP”) launched in 2005. The Clean Energy Supply (“CES”) Contract
5 under which the successful bidders will operate deems dispatch based on a
6 combination of Hourly Ontario Power Prices and three hour-ahead prices published
7 in the IESO schedules. While generators are not required to follow the implied or
8 deemed dispatch, they are at financial risk if they deviate unsuccessfully from the
9 contract model.

10

11 The CES Contract allows for one start-up per day. Generators benefit in that
12 deemed dispatch can only occur after a three-hour ahead pricing signal that is
13 subsequently confirmed by real-time prices. It is assumed that a total of 5,000 MW
14 (includes Greenfield Energy Centre, St. Clair Power, Greenfield South, GTAA,
15 Sithe Goreway, Portland’s, the GTA West RFP and any portion of the Combined
16 Heat and Power RFP awarded to new gas-fired generation) use Deemed Dispatch
17 as the sole or default dispatching mode.

18

19 Directed Dispatch

20 The draft Combined Heat & Power RFP identifies a Directed Dispatch option that
21 will require the supplier to generate electricity pursuant to instructions issued from
22 time to time in advance of the Real Time Market or a Day Ahead Market, if
23 implemented. The dispatch instructions will be for certain specified hours (i.e. 8
24 hours X 5 days) and specified time periods (i.e. monthly, seasonal, and/or

1 annually). It is also contemplated the Ontario Power Authority (“OPA”) will direct
2 the supplier to procure natural gas to implement the dispatch instructions, which
3 can include a day-ahead or longer-term forward purchase.

4
5 Generators operating under the Directed Dispatch option will have relative
6 certainty of operation and therefore be even better able to manage their daily gas
7 supply and balancing needs. It is also possible that the Directed Dispatch option
8 has been added to recent contracts negotiated between the OPA and Power
9 Customers; details have not been released. It is also likely this option will be a
10 feature of future contract negotiations and contracts awarded under RFP
11 procurements.

12 13 **Development of a Day Ahead Market**

14 For a number of years the IESO has been working with stakeholders on the development of
15 a Day Ahead Market as a natural evolution in dispatching the Ontario power market. The
16 first attempt to reach consensus was not successful and the IESO Board instructed staff to
17 work with stakeholders to develop alternative Day Ahead Market models.

18
19 In the interim, and for reliability reasons, the IESO has initiated the development and
20 implementation of a Day Ahead Commitment Process, which is expected to be operational
21 by June 1, 2006. The Day Ahead Commitment Process will remain in place until
22 November 2006, unless otherwise extended by the IESO Board.

1 The Day Ahead Commitment Process pre-dispatch process will be used to commit
2 resources for the next day, and those resources have the option to accept reliability
3 guarantees to ensure their commitment costs are covered if needed. The IESO will now be
4 able to schedule resources based on the needs of the full day rather than two hours ahead.
5 For gas-fired generators this means more operational certainty. When scheduled to
6 operate, guarantees will be offered to ensure they will run to at least their minimum
7 loading points for their minimum run-times in that day. Generators will be reimbursed for
8 the costs they incur to commit the day-ahead.

9

10 When the IESO and stakeholders agree on and implement a cost-effective solution for
11 implementing a fully functioning Day Ahead Market, there will be alignment in the
12 scheduling of fuel from the day ahead natural gas market based on a production schedule
13 from a day ahead Ontario electricity market. This remains a high priority and work is
14 ongoing.

15

16 For gas-fired generators, the Day Ahead Commitment Process and eventual development
17 of a Day Ahead Market will allow for positive improvements in the management of gas
18 supply. Pricing signals three hours ahead, if not a day-ahead of dispatch, will be more
19 accurate. Combined with reliability guarantees, generators will benefit from knowing they
20 will operate at minimum production levels for a minimum period of time. As a result,
21 Power Customers will have a greater ability to provide accurate nominations to the
22 upstream pipelines (Union, TCPL and Enbridge).

23

1 **E) POWER CUSTOMER MEETINGS**

2 As part of its ongoing commitment to improve the current suite of services, Union held
3 three multi-party meetings (August 23, 2005, November 23, 2005 and January 18, 2006)
4 with stakeholders. Union has also had many individual meetings with stakeholders to
5 further solicit feedback in order to support the development of new services to meet market
6 requirements. The first multi-party Power Customer meeting was on August 23, 2005.
7 Invitations were sent to over 40 individuals representing current in-franchise Power
8 Customers, potential new Power Customers, Board staff, and the OPA. During the first
9 part of this meeting, detailed presentations were given on Union's existing in-franchise
10 service: T1, and ex-franchise services: M12/C1.

11

12 The second part of the meeting was dedicated to receiving feedback on both the in-
13 franchise and ex-franchise services Union currently provides. The participants did not
14 identify any recommended improvements or changes to Union's in-franchise T1 service.
15 This was not unexpected given that Union has continually refined the T1 service since its
16 inception, and that it is already structured as a no-notice (no nomination) service.

17

18 For Union's ex-franchise M12/C1 services, the following suggestions for improvement
19 were made:

- 20
- Provide more nomination windows for transportation and storage services;
 - 21 • Allow storage and transportation service to be firm all day;
 - 22 • Provide additional balancing services to help manage daily imbalances; and
 - 23 • Provide high deliverability storage.

24

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1 Several of these service suggestions have been raised within the NGEIR review as well.

2

3 Union immediately formed an internal task team to consider developing new supplemental
4 services for ex-franchise customers. Union held a second multi-party Power Customer
5 meeting on November 23, 2005. Invitees included Power Customers, Board staff, the
6 OPA, and the Association of Power Producers of Ontario (“APPPrO”). The purpose of the
7 meeting was to review with the stakeholders the service concepts, the progress Union had
8 made in developing new services, and solicit feedback on the direction taken.

9

10 Union also co-sponsored (with TCPL and Enbridge) a third multi-party service review
11 meeting on January 18, 2006. Many market participants including Power Customers, the
12 IESO, Board staff, and the OPA attended this meeting. The purpose of the meeting was to
13 review natural gas infrastructure and operations in Ontario, and to allow the three utilities
14 an opportunity to share new power market service developments with industry participants
15 and stakeholders. Most useful to the utilities was the feedback and discussion throughout
16 the meeting.

17

18 Throughout the process, Union has listened to the feedback of the participants and strived
19 to modify the new service proposals to meet customer expectations. Union believes the
20 new ex-franchise service options it proposes reflect the feedback and requirements of the
21 Power Customers. Union also spent considerable time with Enbridge and TCPL reviewing
22 service options. Union believes that this effort have resulted in alignment of Enbridge and
23 Union services.

24

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1 Presentations from the meetings with Power Customers can be found on Union's website

2 at:

3 <http://www.uniongas.com/business/storage/customermeetings.asp>

4

5

6

7

8

9

10

11

12

13

1 **3. IN-FRANCHISE POWER SERVICES**

2 **A) IN-FRANCHISE EXISTING SERVICES**

3 **Overview**

4 Since the first Natural Gas Forum (NGF) meeting took place in November 2003, there have been
5 a number of comments made with respect to services available in the marketplace and the
6 flexibility provided or not provided by these services. As a result, it is both necessary and
7 appropriate to describe Union's current in-franchise services in some detail in order to provide
8 the Board and other parties with an increased understanding of what is currently available to
9 Union's customers.

10

11 As described in Tab 2, Section E, Union held a number of meetings with customers and other
12 stakeholders to consult on current service options and changes that may be required in the future.
13 Throughout this consultation process, there have been no major changes or modifications to
14 Union's existing in-franchise services suggested by customers.

15

16 Union's rate schedules for both Union's Southern Operations Area ("Union South") and Union's
17 Northern Operations Area ("Union North") currently provide all the flexibility required in the
18 Board's directive for the NGEIR. This evidence will explain how current rates and services meet
19 the needs of power customers and address the issues raised in the Procedural Order No. 2 of the
20 EB-2005-0551 NGEIR proceeding.

21

22 Union currently serves over 4,400 MW of gas fired generation capacity in Ontario. This
23 represents approximately 90% of all existing gas fired generation in the province.

1 In the South, Union offers M7 (“Bundled”) U7 (“Unbundled”) and T1 (“Contract Carriage” or
2 “Semi-Unbundled¹”) gas distribution services to the largest contract customers, including the
3 power customers. In the North, Union offers Rate 20, 25 and 100 along with a Customer
4 Balancing Service (“CBS”) and Northern Storage Service to customers including power
5 generation customers.

6
7 This range of services allows customers to choose for themselves the level of operational
8 responsibility and control that they wish to assume. Bundled services combine storage and
9 delivery services. Under a bundled service a customer’s estimated annual supply is received by
10 Union evenly over the year based on an established Daily Contract Quantity (DCQ). The daily
11 delivery of gas to the customer is managed by Union on a no notice/no nomination basis. In
12 contrast, unbundled services separate storage and delivery services. Under an unbundled service,
13 customers separately control and nominate storage daily and must ensure that their daily
14 requirements are met through some combination of upstream receipts and storage withdrawals.
15 Between the bundled and unbundled service, Union has developed a Rate T1 service which gives
16 customers the option of contracting for storage service separately, but without the requirement to
17 manage and nominate storage services daily. Consumption under the T1 service is managed by
18 Union on a no-notice/no nomination basis.

¹ Semi-Unbundled Service – Semi-unbundled customers are served under Rates T-1 and T-3 in Union South. These services include a bundled transportation and delivery service to the end-use location along with an optional storage service at Dawn. A T-1 or T-3 customer is not required to nominate for transportation/delivery, or consumption at their respective facility/plant(s). They also have no requirement to nominate injections and withdrawals into or out of storage. An end of day true-up results in either an automatic injection into storage or withdrawal from storage based on a comparison of supply delivered with the customer’s actual consumption. A T-1 or T-3 customer is required to remain within the contracted parameters of the storage service. Those parameters include injection/withdrawal rights and storage space. A T-1 or T-3 is not allowed a negative storage position (i.e. draft). They are similarly not allowed to exceed their contracted maximum storage balance.

1 Unbundled services place more responsibility on the customer in return for greater control over
2 storage services. A customer that is not comfortable or does not recognize value in separately
3 managing their daily storage and upstream deliveries will choose a bundled service option.
4 Many Union South customers, including power plants, initially began operations using a bundled
5 service. As these customers become more comfortable with their own operations and the
6 flexibility provided under the T1 service, they switched to the T1 service. While maintaining
7 access to no-notice service, T1 service gives customers more flexibility to contract for the
8 amount of storage space, storage deliverability and transportation service they want for their
9 plant operations.

10

11 T1 service is used by over 50 customers consuming over 135 PJs of gas annually in Union South
12 including five large gas fired power plants located in Southern Ontario. These plants, include
13 Imperial Oil, Sarnia Regional Cogen (TransAlta Energy), West Windsor Power, Coral Brighton
14 Beach and TransAlta Cogen. These five plants provide in excess of 1, 400 MW of power and
15 consume approximately 40 PJs of gas per year.

16

17 The 11 power generators in Union North generate in excess of 3,000 MW of power and use Rate
18 20, 25, 100 services, as well as CBS and the Northern Storage Service. These plants consume
19 over 40 PJs per year.

20

21 **i) Union South Services**

22 Overview

23 Within Union South, service options include the bundled M7 service, the semi-unbundled T1 and
24 the unbundled U7 service. To date, the service of choice for Power Customers has been the T1

1 service. T1 service has evolved over the past 15 years in response to changing customer
2 demands.

3

4 The T1 service was introduced in the late 1980s as an additional direct purchase option. It has
5 continued to evolve to meet changing customer demands. Improvements to the service over time
6 include the following:

7

8 *Customer Supplied Fuel/Storage Deliverability Inventory*

9 T1 customers did not originally have the option to provide their own compressor fuel or storage
10 deliverability inventory. Compressor fuel is required to operate Union's transmission and
11 storage compressors. Storage deliverability inventory refers to the amount of gas held in storage
12 to provide the necessary "push" for storage withdrawal. In the 1990's Union provided customers
13 with the option of supplying their own compressor fuel and to supply their own storage
14 deliverability inventory. These options enabled customers to better manage their own costs.

15

16 *Energy Reconciliations*

17 With the installation of gas sampling equipment at all T1 customer locations, Union gained the
18 ability to measure T1 customer's consumption in energy (GJ) in addition to volume (m³). The
19 customer's gas is received by Union in energy (GJ). Therefore, it became much simpler for
20 Union and its customers to understand storage activity when consumption was measured in the
21 same units as receipts. Simply, the difference between the energy received (GJ) and energy
22 consumed (GJ) on a daily basis impacts the net level of gas allocated to the T1 storage account.

23

24

1 Storage Deliverability

2 Union's T1 service offers various levels of storage deliverability (injection and withdrawal).

3 Union's ability to provide this service is dependent on asset availability.

4

5 Rate Structure

6 Evidence in Tab3, Section B provides Union's response to the GEC Decision and details Union's

7 proposal to redesign the T1 firm transportation rate to make it more robust against bypass.

8

9 Current T1 Service

10 Union's T1 service is a semi-unbundled storage and transportation service that allows customers

11 to tailor contract parameters to meet their individual needs. The T1 rate schedule is attached as

12 Appendix A. The minimum eligibility requirement for T1 service is an annual consumption of

13 5,000,000 m³ or greater. Under this service:

- 14
- A single contract deals both the receipt of gas by Union and the subsequent delivery of

15 gas to the end use facility or facilities. A customer with more than one plant

16 operating in Union South has the option and flexibility to combine numerous end use

17 locations under only one contract which allows customers to manage gas supplies

18 across different locations. Examples of T-1 customer with multiple plant locations

19 include an automotive parts manufacturer with plants in Milton and Chatham; a large

20 steel manufacturer with plants in Hamilton and Burlington; and a group of hospitals

21 with four hospitals within one city.

22

23 This diverse range of companies each contract for one T-1 service to manage their

24 multiple locations within Union South. For example, the Hospital Company has one

1 T-1 contract with one set of parameters defining the gas supply received by Union on
2 behalf of all four hospitals; one storage account serving all four hospitals; and four
3 sets of delivery parameters defining the unique arrangements for Union to deliver gas
4 to each individual hospital.

- 5
6 • The transportation or delivery service to the customer's facilities, can be firm or
7 interruptible, or a combination of firm and interruptible. There can be multiple
8 delivery points as part of a T1 contract provided the delivery points are owned by the
9 same legal entity. Each delivery point has its own specific delivery parameters. Firm
10 delivery service is priced based on a fixed rate within the T1 rate schedule.
11 Interruptible delivery service is priced within a range.

- 12
13 • Customers can contract for storage. Contracting for storage, while optional, is
14 available to help manage the variances between receipts on Union's system and
15 consumption at the plant. The customer can elect to take no storage at all or obtain
16 their storage services from a third party storage provider. If storage is contracted for
17 from Union, the customer has the option of firm or interruptible injection and
18 withdrawal services to meet their plant consumption needs. The maximum amount of
19 storage space, available at cost based rates is determined using the Board approved
20 aggregate excess formula². To the extent customers desire storage space in excess of
21 that determined through the aggregate excess calculation, they can contract in the

² In-franchise customer storage requirements are calculated using the "aggregate excess" methodology. This methodology determines what storage space in-franchise customers require to balance their load seasonally. A customer's storage requirement is the difference between their winter consumption and their average annual consumption over the 151 day winter period. The planned winter supply shortfall is delivered from storage.

1 market for additional storage services.

2

3 • T1 service is a no-notice delivery service. A T1 customer does not need to nominate
4 gas for consumption. A T1 customer can consume up to its firm daily transportation
5 demand at any time during the gas day.

6

7 • One of the concerns identified by stakeholders was the desire to redirect gas supply.
8 T1 customers have access to balancing services that allow them to redirect gas supply
9 when they have under-consumed or to deliver incremental supply to Union when they
10 have over-consumed. Appendix B provides a more complete description of these
11 balancing services.

12

13 • Union provides additional operating flexibility for customers at Dawn through ex-
14 franchise HUB services. Customers who sign a HUB contract have access to name
15 changes (title transfers), transportation from Dawn to points both upstream and
16 downstream, short term parking and gas loans and exchanges at Dawn. One HUB
17 contract allows customers to nominate for all these services. Customers can negotiate
18 for enhancements to the basic level of services contemplated by the standard HUB
19 contract.

20

21 Appendix C, T1 Operational Scenarios illustrates working examples of the T1 service and rates
22 for HUB services are market based and are published monthly on the Union web site at:

23 <http://www.uniongas.com/business/storage/hub>

24 U7 Service

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1 In response to demand in the late 1990's, Union designed a set of fully unbundled rates. In the
2 RP-1999-0017 proceeding, unbundling was described as a separate offering of discrete elements
3 of service currently provided on a bundled basis for a single price. The U7 rate schedule can be
4 found at Appendix D. The T1 service already reflected a degree of unbundling; however, T1
5 service remains bundled in that customers do not need to nominate storage injections and
6 withdrawals or daily consumption (delivery to plant).

7
8 The U7 service is an unbundled storage and transportation service for large customers and
9 provides them with the ability to separately contract for and manage storage. Customers electing
10 the U7 service are required to forecast consumption daily and to nominate a combination of
11 upstream receipts on Union and storage withdrawals to meet their forecast consumption. The
12 unbundled service also allows customers greater freedom to move gas on and off Union's
13 system.

14
15 Union's U7 service requires annual consumption of 5,000,000 m³ or more. Under this service, a
16 customer receives:

- 17 • A single contract that deals with the receipt of gas by Union and the subsequent
18 delivery of gas to the end use plant(s).
- 19
20 • A level of delivery service to point(s) of consumption, which can be firm,
21 interruptible, or a combination of firm and interruptible. Multiple plants can be
22 served under a single contract. Each plant will have its own specific delivery
23 parameters. Firm delivery services are priced at a fixed rate within the U7 rate

1 schedule. Interruptible service is priced within a range.

- 2
- 3 • An optional amount of storage space to manage the variances between receipts on
4 Union's system and consumption at the customer's facilities. If a customer elects to
5 contract for Union storage, the service can include firm or interruptible
6 injection/withdrawal service. The maximum amount of cost-based storage allocated
7 to a customer is determined using the Board approved aggregate excess methodology.
8 To the extent customers desire additional storage; they can contract for it at market
9 rates.
- 10

11 Whereas T1 service storage injections and withdrawals are used by Union to balance
12 consumption with upstream receipts on Union (subject to storage contract parameters), a U7
13 customer has full access to the contracted storage and can nominate injections and withdrawals
14 to meet plant requirements or to take advantage of market opportunities.
15 Within contract parameters, the U7 customer nominates daily receipts, consumption, injections
16 into and withdrawals from storage. The U7 customer has the flexibility to divert or sell gas
17 before it arrives at Dawn. Further, the U7 customer can access contracted storage at any time to
18 sell gas to a third party. The U7 customer can also contract for ex-franchise HUB services
19 referenced to in the T1 service description.

20

21 Appendix E compares the attributes of T1 and U7 services for power generators.

22

23

24

1 **ii) Union North Services**

2 Rate 20, Rate 25 and Rate 100 Services

3 The Rate 20, Rate 25 and Rate 100 Rate Schedules can be found in Appendices F, G, and H
4 respectively. The services in Union North are structured somewhat differently than in Union
5 South. Union South relies on the Dawn-Trafalgar system, whereas the Union North system
6 relies on multiple connections with TCPL. As is the case in Union South, Union offers a range
7 of services in the North with varying degrees of bundling. Although Union does not offer
8 completely unbundled (“U”) rates in the North, a high degree of unbundling is available within
9 the existing rate schedules. The location where Union receives gas from the customer
10 determines the extent to which a service is unbundled. If the customer wants Union to receive
11 gas at Empress, the customer is considered bundled. Differences between supply and
12 consumption are balanced along with other bundled customers. If the customer wants Union to
13 receive the gas each day in the delivery zone(s) in which the customer’s plant(s) is located, then
14 that customer is considered an unbundled or transportation customer and balances their own
15 daily needs individually.

16 Due to the configuration of the system and the number of interconnections with TCPL, there is a
17 high degree of alignment between the services Union provides and those provided by TCPL.
18 Union interacts and balances the needs of the system with TCPL, including those of
19 transportation service customers. Any changes Union makes to its services must to some degree
20 be complementary and aligned with services provided by TCPL.

21
22 Rate 20, 100 and 25 services operate separately from one another. The main differences between
23 Rate 20 and 100 are minimum volume and load factor (“LF”) requirements. To access Rate 20
24 service, customers have to have a minimum daily volume of 14,000 m³. To access Rate 100

1 service, customer have to have a minimum daily volume for firm service of 100,000 m³ and an
2 annual requirement for firm service equal to or greater than the daily requirement multiplied by
3 256(i.e. 70% LF). Rate 25 is an interruptible service also available to customers.

4

5 Union's Rate 20 and Rate 100 services are firm services designed for the largest firm contract
6 rate customers. These services combine firm transportation and balancing with contractual
7 parameters according to the customer's specific requirements. Each of the 11 gas fired power
8 plants served by Union in the North use transportation Rate 20 or 100 services. Rate 25 is
9 normally ancillary to these customer's firm service requirements. However, there is no
10 requirement for a firm service component and customers can rely entirely on interruptible
11 service. Rate 25 is priced within a negotiated range, similar to the T1 interruptible service.

12

13 Rate 20, 100 or 25 have the following features:

- 14 • A level of firm (Rate 20 or 100) and/or interruptible (Rate 25) transportation or
15 delivery service to the customer's facilities. This represents Union's obligation to
16 deliver a contracted amount of gas from the TCPL interconnect with Union in the
17 particular delivery zone to the customer's facilities, on any day.
- 18
- 19 • Union receives a constant volume of gas each day at Empress from a bundled Rate 20
20 or 100 customer. To balance seasonal variations between deliveries and
21 consumptions, Union may require the customer to curtail gas deliveries.
- 22
- 23 • Union receives gas daily at the TCPL/Union interconnect in the delivery zone for
24 each transportation Rate 20 or 100 customer. The gas received can change from day

1 to day, as the customer must balance their consumption and their receipts by Union
2 on a daily basis.

- 3
- 4 • A Customer Balancing Service (CBS) is a service offered which is designed to
5 manage the difference between plant consumption and receipts into the delivery zone
6 on a daily basis. CBS is a flexible service that offers T-service customers the ability
7 to park and/or draft gas.

- 8
- 9 • Northern Storage Service is an optional amount of storage service that can be used to
10 manage longer term and seasonal variances between receipts on Union's system and
11 consumption at a customer's facilities. This service operates from Dawn and gives
12 the customer access to multiple supply points and highly liquid natural gas markets.

13

14 **B) NEW T1 RATE STRUCTURE**

15 On January 6, 2006 the Board issued its Decision in the RP-2005-0022/EB-2005-0411
16 proceeding, granting the Greenfield Energy Centre ("GEC") the authority to physically bypass
17 Union through the construction and operation of its own natural gas facilities. As part of its
18 Decision, the Board made several comments related to the appropriateness of the design of the
19 T1 service. This evidence provides Union's response to the GEC Decision and details Union's
20 proposal to redesign the T1 firm transportation rate to make it more robust against bypass. This
21 evidence is presented under the following headings:

- 22 • Introduction
- 23 • Current T1 Design

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- 1 • Proposed Rate Design for Firm T1 Transportation Service
- 2 • Other Changes to the T1 Transportation Services
- 3 • Summary

4

5 **Introduction**

6 On July 20, 2005, GEC applied to the Ontario Energy Board for leave to construct natural gas
7 transmission facilities to supply its electricity generating station. The GEC pipeline would
8 connect directly to the Vector pipeline. The GEC proposal represented a physical bypass of
9 Union's integrated distribution, transmission and storage system. In response to GEC's
10 application, Union filed a competing facilities application. Under Union's proposal, distribution
11 service to the power plant would be provided under the T1 rate schedule.

12

13 On January 6, 2006, the Board issued its Decision in the RP-2005-0022/EB-2005-0411
14 proceeding approving the GEC pipeline application as being in the public interest³. As part of
15 finding the GEC facilities application to be in the public interest, the Board made several
16 comments with respect to the inability of Union's current T1 service to meet the needs of
17 customers like GEC and, as a result, to be a tariff solution to bypass. The Board's comments and
18 findings related to Union's services and rate design are provided below.

19

20 On the second page of the Executive Summary the Board states:

21 "The Board observes that it is possible for Union to develop a tariff solution for customers of
22 the size and needs of GEC to permit the utility's offerings to be more robust against bypass."

³ The Board also approved Union's application to construct facilities to serve the power plant provided it is able to secure GEC as a customer.

1 At page 27, the Board concluded that;

2 “...it is in the public interest to allow GEC the opportunity to bypass Union’s distribution
3 service because the Board is not convinced that Union’s distribution service, as presently
4 structured, provides GEC with the control, flexibility and access to competitive upstream
5 services that GEC requires. We believe that this case has not exhausted the review of the
6 adequacy of distribution services in Ontario to meet the requirements of customers with
7 requirements similar to GEC’s. That review will be conducted in the Natural Gas Electricity
8 Interface Review (or NGEIR) proceeding. Union (and Enbridge) will have the opportunity in
9 that proceeding to propose alternative services to meet these requirements.”

10

11 With respect to postage stamp rates, at page 31 of its RP-2005-0022/EB-2005-0411 Decision, the

12 Board stated that it;

13 “...continues to support the principle of postage stamp rates, but does not conclude that the
14 approval of GEC’s application would undermine that principle. An important foundation for
15 postage stamp rates is the appropriate determination of a class and the accurate allocation of
16 costs to that class. An equally important consideration is that customers should be entitled to
17 receive the services they require and the tariff should reflect those services appropriately.”

18

19 Also at page 31, the Board states;

20 “We find that the evidence and submissions in this case suggest that loads such as
21 GEC (in terms of size and requirements for flexibility) may warrant a different class, or
22 different set of services, than the T1 rate class as currently structured. This is supported by
23 recent developments as well as parties’ submissions in this proceeding.”

24

25 At page 32;

26 “We believe there may be a ratemaking alternative to GEC’s bypass solution, one that is
27 grounded in class-based postage stamp ratemaking. The public interest would be served if
28 Union were able to negotiate a just and reasonable rate and package of services which met the
29 needs of GEC.”

30

31 In reference to Union’s T1 service, at page 34, the Board stated that:

32 “Appropriately designed distribution services can be designed to be robust against bypass.
33 The same cannot be said about competitive services that are bundled with distribution
34 services.”

35

36 And finally at page 35 of the Board’s Decision;

37 “We conclude from the evidence and testimony that not all generators, or large volume
38 customers, will necessarily have the same level of economic motivation as GEC and that if
39 Union develops a rate and services which meet their needs, the motivation to bypass will be

1 addressed. We note that to the extent that a new tariff is developed, customers will be eligible
2 based on their load characteristics, not their end use.”

3
4 Based on the Board’s comments and findings in the GEC Decision, Union is proposing rate
5 design changes that would result in rates that better respond to bypass threats. Union has
6 interpreted the Board’s expectation that Union develop rates that are “robust” against bypass to
7 mean that it should investigate ways of making its rates for customers like GEC lower. Further,
8 it is clear that the Board expects that such changes are possible in the context of postage stamp
9 class rate making principles and that the appropriate forum for addressing these changes is the
10 NGEIR proceeding.

11
12 It is within this framework that Union is proposing the following changes to the rate design for
13 T1 firm transportation service:

- 14 • Replace the current two block declining demand charge rate structure with a four step
15 block demand rate structure; and
- 16 • Replace the two block declining commodity charge with a single commodity charge
17 applicable to all firm T1 transportation customers.

18
19 If the Board accepts Union’s proposal to redesign the firm transportation service, Union will also
20 change the rate design of U7 to align the semi unbundled and unbundled service offerings.

21 Union’s proposals are discussed in more detail below.

22 23 **Current T1 Rate Design**

24 The T1 rate schedule is applicable to customers with combined firm and interruptible annual
25 consumption of 5,000,000 m³ or more. Customers can contract for 100% firm, 100%

1 interruptible or combined firm and interruptible transportation service. Interruptible
2 transportation rates are customer specific and are negotiated within a Board approved range. As
3 such, Union is not proposing any changes to the rates it charges for interruptible services.

4
5 Union is also not proposing any changes to the rate design of storage service provided under the
6 T1 rate schedule. Storage service is an optional service available to T1 customers at cost for
7 space up to the amount determined applying the aggregate excess methodology and deliverability
8 up to 1.2%.

9
10 The current rate design for firm transportation services was approved by the Board in the RP-
11 2003-0063 proceeding. In the RP-2003-0063 proceeding, the Board approved Union's proposal
12 to introduce a two demand, two commodity block rate structure for T1 firm transportation
13 service. This rate design change was proposed by Union to better align cost incurrence with cost
14 recovery and to reduce intra class cross subsidization of small customers by large customers.
15 Proposed 2007 rates designed using the current approved rate structure for firm T1 transportation
16 service is provided in Table 1 below.

17

18

19

20

21

22

23

24

Table 1

1

<u>Line No.</u>	2007 Proposed Rates T1 Firm Transportation Rate	<u>Cents / m³</u>
1	Monthly Charge (all customers)	\$1,800
	<u>Monthly Demand Charge</u>	
2	First 140,870 m ³	21.1844
3	All over 140,870 m ³	15.0749
	<u>Commodity Charge (Union Supplies Fuel)</u>	
4	First 2,360,653 m ³	0.3356
5	All over 2,360,653 m ³	0.2759

2

3 As a result of the rate structure approved by the Board in the RP-2003-0063 proceeding,
4 customers with contract demands ("CDs") in excess of 140,870 10³m³/day and/or volumes in
5 excess of 2,360,653 m³ per month pay a lower average unit rate for transportation service which
6 is reflective of the lower cost to provide service to large customers.

7

8 **Proposed Rate Design for Firm T1 Transportation Service**

9 *T1 Firm Transportation Rate Redesign*

10 In response to the GEC Decision, Union undertook a review of the T1 firm transportation rate to
11 determine if there was any further rate design changes that would result in lower rates for large
12 customers similar in size to GEC. Based on this review Union determined that it could support
13 lower rates for customers with very large CDs.

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1

2 As indicated above, Union is proposing to redesign T1 firm transportation service by:

- 3 • Replacing the current two block declining demand charge structure with a four step
- 4 block demand rate structure; and
- 5 • Replacing the two block declining commodity charge with a single commodity
- 6 charge applicable to all firm T1 transportation customers.

7

8 Approved Cost Allocation and Rate Design Approach

9 Union's Board approved cost allocation study methodology allocates costs to rate classes using
10 allocation factors that reflect the underlying cause of cost incurrence. For example, demand-
11 related costs are allocated to rate classes using the peak day demands of each rate class.

12 Commodity-related costs are allocated to rate classes based on rate class consumption.

13 Customer-related costs are allocated based on the number of customers in each rate class.

14

15 Under the approved cost allocation methodology, differences in customer location are reflected
16 in the allocation of demand-related costs to rate classes. Under the current approved cost
17 allocation methodology used to allocate distribution demand-related costs, rate classes with
18 customers served directly off transmission main are allocated less distribution demand-related
19 costs than rate classes with fewer customers served directly off transmission main. Location,
20 therefore, in the context of allocating distribution demand-related costs, has an impact on the
21 overall level of costs allocated to a rate class.

22

23 In the 2007 cost allocation study, there are 30 customers served directly off transmission main of
24 which 24 are in the T1 rate class. As a result, the T1 rate class receives a significant benefit

1 associated with the allocation of distribution demand-related costs. If Union did not remove the
2 demands of customers served directly off transmission main from the distribution demand
3 allocator, the allocation of costs to T1 would increase by approximately \$24.1 million.

4

5 Within the cost allocation study, transmission demand-related costs are functionalized, classified
6 and allocated separately for each transmission system. That is, within the transmission function,
7 costs associated with the Dawn-Trafalgar, Ojibway/St. Clair and Other Transmission systems are
8 separately allocated to rate classes based on the peak day demands of each transmission system
9 (i.e. Dawn-Trafalgar transmission costs are allocated in proportion to the demands on the Dawn-
10 Trafalgar transmission system and Ojibway/St. Clair and Other Transmission costs are allocated
11 in proportion to the demands on these systems).

12 As indicated above, from a cost allocation perspective, the location of individual customers
13 within a rate class has an impact on the allocation of costs to the rate class depending on the
14 transmission facilities used in the provision of service and whether or not a customer is served
15 using distribution facilities. The rate design process to date, however, has not considered
16 location. Rates are designed based on the total costs allocated to a rate class. As a result, all
17 customers within a rate class share in the costing benefits derived from one particular customer
18 or group of customers' location.

19

20 For the T1 rate class, this means that there is a significant intra class subsidy of small customers
21 (CD's less than $140,870 \text{ } 10^3 \text{ m}^3/\text{day}$) and large customers (CD's in excess of $422,611 \text{ } 10^3 \text{ m}^3/\text{day}$).
22 This intra class subsidy exists because within the T1 rate class the majority of smaller T1
23 customers are served off distribution main while larger T1 customers are served off transmission
24 main. The current two block rate design for T1 firm transportation service only partially

1 recognizes the costing differences within the T1 rate class.

2

3 *Firm Transportation Demand Charges*

4 To achieve a more complete alignment between cost incurrence and cost recovery, Union is
5 proposing to replace the current approved declining two demand rate structure with a four step
6 block rate structure. A step block rate structure means that customers pay the same rate on their
7 entire CD. The step block rate structure allows Union to more directly recognize average unit
8 cost differences associated with the use of the underlying transportation related assets within the
9 T1 rate class. In essence, Union is proposing to recognize more fully in the rate design of the T1
10 service that which is already recognized in the approved cost allocation study methodology, i.e.
11 to recognize the underlying facilities costs associated with serving customers of different size
12 within the T1 rate class.

13 To establish the appropriate step block breakpoints, Union reviewed the CD profile for T1 firm
14 customers forecast for 2007. The purpose of the review was to determine whether there were any
15 CD clusters or gaps that would be indicative of an appropriate CD breakpoint.

16

17 Based on Union's review of the firm CD profile of the T1 rate class, Union determined that there
18 were two "logical" breakpoints at approximately 400,000 $10^3\text{m}^3/\text{day}$ and 1,100,000 $10^3\text{m}^3/\text{day}$.

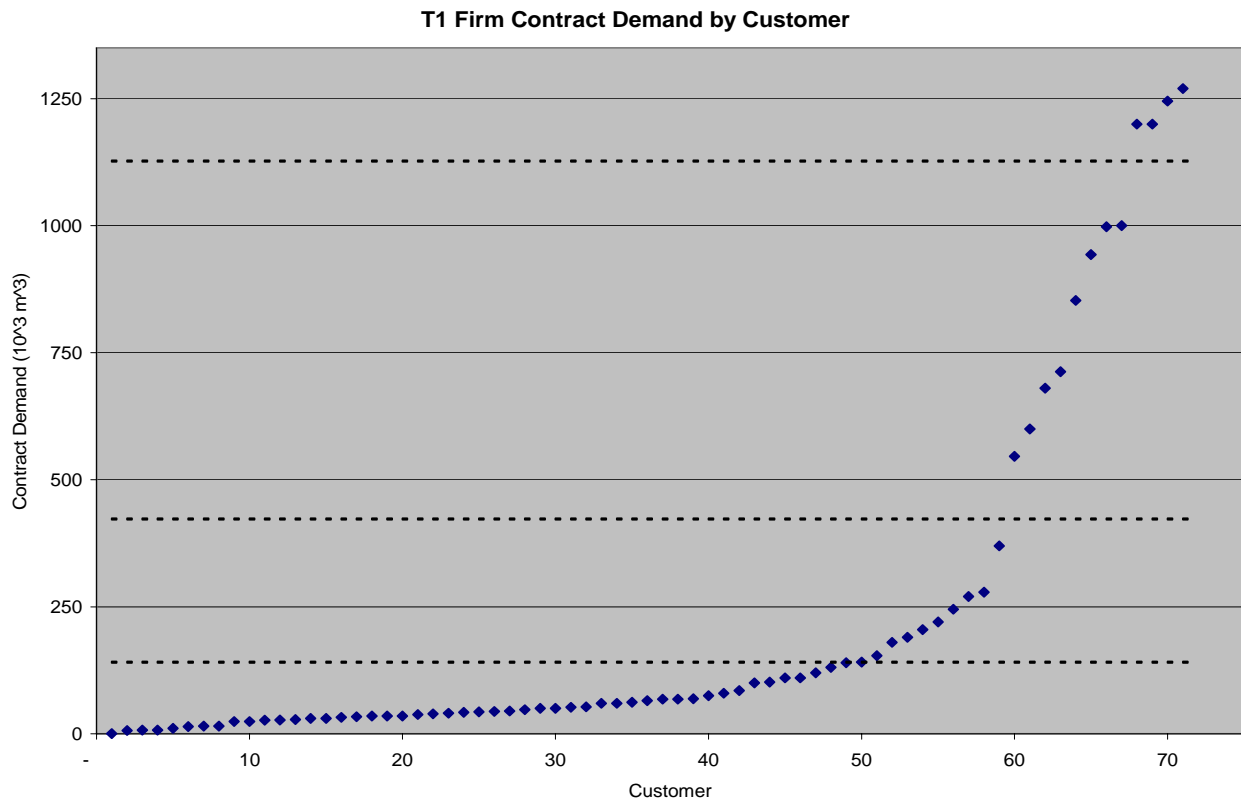
19 At these CD levels there are sufficient customer numbers within each cluster and a sufficient gap
20 between each cluster to serve as a logical breakpoint. The 2007 CD profile is provided at Chart

21 1.

22

23

Chart 1



1

2 In addition to the “logical” breakpoints described above, Union is proposing to maintain the
 3 current T1 breakpoint of 140,870 m³/day. The breakpoint of 140,870 m³/day is equivalent to the
 4 minimum contracted daily demand applicable to large volume customers taking firm service
 5 under rate M7 of 140,870 m³/day. This contracted daily demand level also represents the
 6 maximum CD of customers taking service under rate M4, rate M5A. Union is proposing to
 7 maintain the demand rate breakpoint of 140,870 m³/day because it is consistent with the
 8 applicability requirements under rate M4, rate M5A, rate M7, or rate U5.

9

10 Based on the above, the proposed step blocks for the redesigned T1 firm transportation demand
 11 charges are:

- 12 • Block 1 applicable to customers with CD's up to 140,870 10³m³/day;
- 13 • Block 2 applicable to customers with CD's from 140,870 10³m³/day to 422,610

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- 1 $10^3\text{m}^3/\text{day}$;
- 2 • Block 3 applicable to customers with CD's from 422,610 $10^3\text{m}^3/\text{day}$ to 1,126,964
- 3 $10^3\text{m}^3/\text{day}$; and
- 4 • Block 4 applicable to customers with CD's of 1,126,964 $10^3\text{m}^3/\text{day}$ or more.

5

6 *Firm Transportation Commodity Charges*

7 Union is proposing to replace the current two declining block commodity rate structure with a

8 single commodity rate applicable to all volumes transported. Union is proposing a single

9 commodity rate:

- 10 • To align the commodity rate structure with the single demand rate applicable to
- 11 customers within each step; and
- 12 • To partially offset negative rate impacts on smaller T1 customers resulting from the
- 13 further reduction in the intra class subsidy.

14

15 The amended T1 and U7 Rate Schedules can be found in Appendices I & J respectively.

16

17 *Price Levels*

18 The proposed pricing for the redesigned T1 firm transportation service is provided in Table 2

19 below.

20

21

22

23

Table 2

<u>Line No.</u>	Proposed T1 Firm Transportation Pricing	<u>Cents / m³</u>
1	Monthly Charge (all customers)	\$1,800
	<u>Monthly Demand Charge</u>	
2	Up to 140,870 m ³	31.5303
3	140,871 m ³ to 422,610 m ³	23.0820
3	422,611 m ³ to 1,126,964 m ³	14.6293
4	All over 1,126,964 m ³	10.6872
5	Commodity Charge (Union Supplies Fuel)	0.2912
6	Commodity Charge (Customer Supplies Fuel)	0.0943

1

2

3 In setting the price levels for each block of the redesigned T1 firm transportation demand blocks,

4 Union considered:

- 5 • The allocation of costs to each of the new blocks;
- 6 • The proposed recovery of allocated costs prior to the redesign;
- 7 • The relative price differences between rate classes at the rate class boundaries; and
- 8 • The overall objective of designing a rate “robust” enough to defend against bypass

9

10 Allocation of Costs to the New Blocks

11 Union’s proposal recognizes that when providing distribution and transmission services to

1 different customers, Union utilizes different assets. Typically large customers are served using
2 transmission assets rather than distribution assets. The result is that for large customers the cost
3 of providing transportation service to the end use location is lower than for smaller customers.
4 The proposed T1 rate design recognizes this difference by setting the price level for the first step
5 block at approximately 20.8431 cents/m*3/month higher than the last step block.

6

7 *The Proposed Recovery of Allocated Costs prior to the Rate Redesign*

8 Union's proposed rate design uses the 2007 test year allocated costs of service. Union is
9 proposing to maintain, at the rate class level, the same overall recovery proposed by Union in its
10 EB-2005-0520, Phase II evidence. This means that no other rate class will be impacted as a result
11 of the proposed rate redesign and that Union is revenue neutral to the change. The 2007
12 proposed recovery associated with firm T1 transportation service is \$37.279 million (excluding
13 fuel and unaccounted for gas) (EB-2005-0520, Exhibit H3, Tab 1 Schedule 2, page 8).

14

15 *Relative Price Differences at the Rate Class Boundaries*

16 As part of any rate design process Union considers the differences between rate classes at the
17 rate class boundaries. Union does not want to create an incentive for customers to switch rate
18 classes for reasons other than load and load profile. In other words, customers should face
19 similar prices for similar service offerings based on their load and load profile. In terms of
20 Union's T1 redesign, this means that the first and second block rates should be set at a level
21 consistent with what a small to medium size T1 customer would face if they chose to move from
22 the semi unbundled firm T1 service to the bundled M4 and M7 services.

23

24 *The Overall Objective of Designing a Rate More "Robust" Against Bypass*

1 It is Union's view that the rate change associated with the T1 rate redesign must be material if
2 Union's T1 rate is to be competitive against bypass. With this in mind, Union targeted a rate for
3 the last two blocks that would be significantly lower than what those large customers would face
4 under the current T1 rate design. As a guide, Union used the average cost associated with
5 providing services to large customers served directly off transmissions main to set the price of
6 the last two blocks.

7

8 Customer Impacts

9 The following is in response to mandatory evidence Question 3: *What are the rate implications*
10 *(if any) on other customer groups?*

11

12 As a result of Union's redesign of the T1 firm transportation demand charge and commodity
13 charges smaller T1 customers (CD's that are less than 140,870 10³ m³/day) will see firm
14 transportation delivery rate increases of approximately 0.4789 cents/ m³ (40%). Large T1
15 customers (CD's that are greater than 1,126,964 10³ m³/day) will see firm transportation delivery
16 rate decreases of approximately 0.2326 cents/ m³ (27%). Table 3 below provides the average
17 delivery rate impact for customers within each of the new demand blocks relative to Union's
18 2007 proposed T1 rates.

19

20

21

22

23

Table 3

24

Firm Transportation Delivery Rate Impacts

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<u>Line No.</u>		<u>2007 Proposed Cents / m³</u>	<u>T1 Redesign Cents / m³</u>	<u>%</u>
1	Up to 140,870 m ³	1.2102	1.6891	40
2	140,871 m ³ to 422,610 m ³	1.0662	1.2618	18
3	422,611 m ³ to 1,126,964 m ³	0.9068	0.8342	(8)
4	All over 1,126,964 m ³	0.8675	0.6349	(27)

1

2 **Implementation Timing**

3 The following is in response to mandatory evidence Question 4: *What is the expected timing*
4 *regarding the implementation of the new services?*

5

6

7 Union is proposing to implement the T1 firm transportation rate redesign prospectively on

8 January 1, 2007 as part of implementing the EB-2005-0520 rate order.

9

10 **Other Changes to the T1 Transportation Services**

11 In addition to changes to rate design discussed above, Union has proposed for 2007 not to charge
12 customers transportation fuel and unaccounted-for-gas ("UFG") to T1 customers served through
13 dedicated facilities, directly connected to a third party transmission system.

14

15 T1 transportation fuel and unaccounted-for-gas ("UFG") is currently recovered from T1 firm and

16 interruptible transportation customers through the transportation commodity charge for

17 customers that have chosen the Union supplied fuel option. For customers that have chosen the

18 customer supplied fuel option, fuel and UFG is provided in kind through the transportation fuel

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1 ratio.

2

3 Union is proposing to modify the TI rate schedule to include wording that would allow
4 customers to avoid paying for fuel and UFG on volumes transported through dedicated facilities,
5 directly connected to a third party transmission system. In addition, custody transfer metering
6 must take place at the interconnect with the third party transmission system. Customers meeting
7 all of these criteria would not be charged for fuel and UFG by Union because they would not be
8 contributing to its incurrence on Union's system. Fuel and UFG would continue to be applicable
9 to all volumes and customers taking service using Union's integrated facilities.

10

11 This service will only be applicable to large volume customers that are able to locate in close
12 proximity to third party pipelines such as Vector and TCPL.

13

14 The proposed rate schedule can be found in Appendix I.

15 **Summary**

16 In response to the Board's Decision with respect to GEC, Union is proposing to redesign the
17 rates applicable to customers taking firm T1 transportation service by:

- 18 • Replacing the current two block declining demand charge structure with a four step
19 block rate structure; and
20 • Replacing the two block declining commodity charge with a single commodity
21 charge applicable to all firm T1 transportation customers.

22 The redesigned T1 firm transportation rate structure reduces the intra class subsidy within the T1
23 rate class results in a better alignment between cost incurrence and rate recovery. In this respect,
24 Union's proposal is consistent with other rate design changes that have been approved by the

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1 Board in the past, such as increases in fixed monthly customer charge for general service
2 customers (RP-2003-0063), the redesign of Rate 20 (RP-2002-0130) and the initial blocking of
3 the T1 firm transportation demand and commodity rates (RP-2003-0063). Further, the approach
4 taken by Union is consistent with its proposal in the EB-2005-0520 proceeding to split the M2
5 rate class to reduce the intra class subsidy of small general service customers by large general
6 service customers.

7

8 It is Union's view that the T1 rate redesign proposal results in rates that are more robust against
9 bypass while at the same time remaining consistent with the principles of class rate making and
10 postage stamp rates described by the Board in the GEC Decision (RP-2005-0022 / EB-2005-
11 0411 Decision with Reasons, page 32). As indicated above, the impact on Union's largest
12 customers is a reduction in delivery rates of approximately 0.2326 cents/m³ (27%).

13 Union has fully exhausted its rate design options for creating lower rates for large customers
14 such as Power Customers while adhering to the principles of postage stamp rates and class rate
15 making.

16

17 **C) RESPONDING TO THE PROCEDURAL ORDER ISSUE I – IN-FRANCHISE SERVICES**

18 The following section specifically addresses the mandatory evidence for each of the six services
19 identified in the Board's Procedural Order as they relate to Union's "in-franchise" services.

20 Later in this evidence, Union will similarly address "ex-franchise" services.

21

22 *1) More frequent nomination windows for distribution, storage and transportation that*
23 *correspond with the nominations of upstream pipelines that connect to the Ontario gas*
24 *system.*

1 Nominations for consumptions on Union's system by in-franchise customers are not
2 required for M7, T1, R20, R100 and R25 services. When nominations are required, as
3 is the case with receipts from T1 customers to Union and unbundled services, they
4 correspond with the nominations of upstream pipelines connected to the gas system
5 (four NAESB windows).

6
7 All of Union's in-franchise services outlined above are premised on Union's system
8 receiving customer's gas off of upstream pipelines that connect to Union's system.

9 All upstream pipelines connected to Union's system operate under NAESB windows
10 (as referenced in North American Standards for Natural Gas Tab 2, Section A).

11 Accordingly, nomination windows for receipts from these other sources adhere to
12 North American Standards. However, once the gas has been received by Union, there
13 is no requirement for customers to nominate for distribution services. In addition,
14 there is no requirement for customers taking M7, T1, Rate 20, 100 or 25 CBS services
15 to nominate injections or withdrawals from storage. All of these services already
16 provide maximum flexibility to the customer in that there are no notice/no nomination
17 requirements.

18
19 Under the unbundled U7 service, customers can nominate storage during the same
20 four NAESB windows that govern their upstream supply nominations.

21 2) *Firm high deliverability service from storage with customer options for 1.2%, 5% and 10%*
22 *deliverability.*

1 Currently, customers receiving T1, U7, R20, R100 and R25 service have the option of
2 contracting for a range of storage deliverability services from Union or from a third
3 party storage provider. Customers do not have to contract for Union storage services.

4
5 T1 or U7 customers who choose to contract with Union for storage services, can
6 contract for firm and/or interruptible deliverability. Customers in Union North
7 contract for only firm deliverability. Union's standard storage deliverability is 1.2%
8 of the total amount of space contracted for and is priced at cost. To the extent
9 customers wish to contract for storage deliverability in excess of 1.2% (i.e. 5% or
10 10%), they have that option either through Union or with a third party. At the
11 customer's request, Union will conduct an analysis to determine what facilities or third
12 party services would be required to provide a higher level of deliverability.

13
14 3) *Gas storage and distribution offered as discrete services*

15 As outlined above, the T1, U7, R20, R100 and R25 services allow for storage and
16 distribution to be taken as discrete services.

17
18 4) *"Inter-franchise movement of gas" and*

19 5) *"Redirection of gas to a different delivery point on short notice"*

20 Union currently offers a range of in-franchise and ex-franchise services to in-franchise
21 customers that permit both inter-franchise movement of gas and redirection of gas to
22 different receipt points on Union's system.

23 In the event a T1, R20, R100 or R25 customer's consumption is unexpectedly reduced
24 within the gas day, the gas may be injected into storage, the customer may request

1 authorization to redirect gas to a HUB account, or may suspend gas receipts by Union
2 in order to sell to a third party. Appendix C: T1 Operational Scenarios illustrates
3 working examples of these services

4
5 In the event a U7 customer's consumption is unexpectedly reduced within the gas day,
6 they have the flexibility to nominate the remainder of the day's receipts into their U7
7 storage account (up to contract parameters); to nominate to redirect gas to a HUB
8 account, or to suspend gas receipts in order to sell to a third party.

9 In the event consumption unexpectedly exceeds original supply arrangements, all
10 customers can request to bring in incremental supply.

11
12 There is no charge for supply suspensions or incremental supplies.

13
14 In the event that a T1, R20, R100 or R25 customer does not suspend or divert
15 upstream deliveries to balance receipts with consumption, they may request
16 authorization to withdraw a comparable volume of gas from their allocated storage
17 account to be resold or redirected. Such a transaction is administered through an Ex-
18 Franchise Transfer Service which is a cost based balancing service available to all in-
19 franchise customers. See Appendix B for full descriptions of Union Gas' in-franchise
20 balancing services.

21
22 All customers can enter into a HUB contract in order to access ex-franchise, market
23 based transactional services (i.e. firm or interruptible transportation upstream and

1 downstream) in order to move gas to another franchise area or to redirect gas out of
2 the Union system.

3
4 *6) The ability to transfer the title of gas in storage.*

5 Union's customers have access to many tools that allow them to manage temporary
6 supply demand imbalances. These include upstream DCQ diversions/
7 assignments/suspensions, and contracted services that allow customers to manage
8 multiple end use locations under a single service. Other tools include in-franchise
9 (IFT) and ex-franchise (EFT) transfers which involve the transfer of title of gas
10 already received on the customer's account. Only the IFT and EFT services attract
11 injection and withdrawal charges.

12
13 Given the upstream and contractual options available and the flexibility afforded
14 customers by those options, Union does not see the need to provide additional tools
15 such as underground title transfers. Further, given that the market place for buying and
16 selling gas in Ontario is above ground, and the operational and contractual
17 implications associated with offering underground transfers, it is Union's view that the
18 development of underground titles transfers is not appropriate. The options available
19 to customers and Union's concerns regarding underground title transfers are discussed
20 below.

21
22
23 Services Currently Available

1 As indicated above, customers wishing to balance their supply and demand have
2 several tools available.

3
4 *Upstream Diversions/Assignments/Suspensions*

5 Perhaps the most common tool is the use of Union's in-franchise cost-based balancing
6 services including DCQ suspensions, DCQ assignments or diversions as described in
7 Appendix B. These are the services customers use to manage supply before gas is
8 credited to their in-franchise contract. These services are either free of charge
9 (suspensions) or provided at a nominal administrative fee (DCQ assignments or
10 diversions). Customers can request these services up to their daily contracted level of
11 receipts.

12
13 *Contractual Arrangements*

14 Union's currently approved T1, U7, R20 and R100 services provide customers with
15 the flexibility to use one storage or balancing service to manage multiple plant
16 locations provided the end use locations are owned by a common legal entity. This
17 avoids the need for one legal entity to title transfer gas between separate contracts and
18 storage accounts.

19
20 This flexibility allows a customer, such as a large steel manufacturer with plants in
21 Hamilton and Burlington, to contract for one T-1 service to manage multiple plant
22 locations. The steel manufacturer has one T-1 contract with one set of parameters
23 defining the gas supply received by Union on behalf of all plant locations, one storage
24 account serving all locations and a separate set of delivery parameters for each plant

1 location, defining the unique arrangements for Union to deliver gas to each individual
2 plant.

4 *Title Transfers*

5 The third option for customers to manage supply and demand is to transfer title of gas
6 that has already been credited to the in-franchise contract and, since it was not
7 consumed at the plant, injected into storage. These title transfer transactions take
8 place above ground and do attract injection and withdrawal fees. This treatment is
9 appropriate because it is consistent with how the market for natural gas operates,
10 supports the efficient operations of multiple storage pools and prevents contractual
11 arbitrage.

13 The Market for Natural Gas

14 In 2005, Union facilitated over 7 million GJ/day (approximately 2,500 million
15 GJ/year) of above ground in-franchise and ex-franchise title transfers. Above ground
16 title transfer activity associated with T1 customers accounted for approximately 1.5
17 million GJ (less than 0.06%) of total 2005 above ground title transfer activity.

18
19 The market place for title transfers (buying and selling of natural gas) in Ontario is
20 above ground. It is important to allow this activity to happen above ground at Dawn
21 given the large number of market participants that transact at Dawn and the fact that
22 the infrastructure delivering gas to Dawn ties to the above ground market at Dawn.

23 The market participants, both in-franchise and ex-franchise, rely on the infrastructure
24 supporting Dawn, including interconnecting pipelines (Panhandle , Trunkline, Vector,

1 Great Lakes Gas Transmission, TCPL, MichCon) and storage (Dawn, Enbridge
2 Tecumseh pools and, in the future, other 3rd party storage providers).

3 4 Operational Considerations

5 An area of concern regarding underground title transfers is the operation of, and
6 inventory in, the storage pools. Union can only contract for as much storage service as
7 it has the physical ability to provide. Union provides storage service for customers
8 from the twenty Union owned and operated storage pools and from a storage service
9 provided by Enbridge. Each storage pool has unique operating characteristics. For
10 example, those pools exhibiting high deliverability characteristics would be used
11 primarily to service customers contracting for high deliverability service. Storage
12 operators manage and control the inventory in each pool in order to meet the levels of
13 total integrated contracted service. When a title transfer takes place between
14 customers with very different levels of service (i.e. between a contract with 1.2%
15 deliverability and a contract with 10% deliverability), the storage operator must be
16 able to serve the additional 10% deliverability. To meet this level of service, the
17 storage operator may need to physically flow gas between pools either immediately or
18 at a later time. The physical flow would incur actual costs which the operator needs to
19 be able to recover. In this instance, the title transfer of gas is not merely notional.

20 21 Contractual Considerations

22 Underground title transfer activity can also lead to issues of arbitrage. If not
23 restricted, gas could freely move between a high injection contract to a lower injection

1 contract. This effectively gives the customer who paid for low injection capability,
2 access to a high injection service.

3
4 It is Union's view that customers contract for and pay for a service that reflects the
5 contractual, not the physical, flow of gas. In the case of title transfers, since the
6 market for gas is above ground, this means that injection/withdrawal charges should
7 apply. The Board most recently confirmed in Union's RP-2003-0063 proceeding on
8 M13 transportation rate design and, again, in Union's EB-2004-0542 proceeding on
9 M16 transportation rate design that contractual flows, not physical, are the appropriate
10 basis on which rates are designed and charged.

11
12 Summary

13 Given the market for natural gas, and the operational and contractual issues associated
14 with underground title transfer, plus the existence of a number of proven and reliable
15 tools to manage supply and demand balances, Union does not believe that
16 underground title transfers are appropriate or required.

17
18 However, if the Board determines that underground title transfers are a required
19 service, Union could only offer the service with very well defined parameters so as to
20 avoid the operational and contractual implications described above.

21
22 Union would offer an in-franchise service between T-service customers (T1 and T3)
23 that are like and similar. Contract parameters that would have to be the same would
24 include:

- 25
- % Withdrawals

- 1 • % Injections
- 2 • Supplier of deliverability inventory (customer supplied vs. Union
- 3 supplied)
- 4 • Customer inventory within the same deliverability ratchets
- 5 • Quality of service (firm versus interruptible)
- 6

7 Upholding the existing T1 structure, this service would be contracted through an
8 Authorization Notice. This is the current process for above ground title transfers for
9 T1 customers. Approval for the transaction would be limited by the lesser of the
10 seller's withdrawal limit and the buyer's injection limit. An appropriate
11 administrative fee would be developed.

12

13 Responses to the following questions (where applicable) are included in the New T1 Rate Tab 3,

14 Section B:

- 15 1. *What are the operational implications / barriers (if any) of providing these new services?*
- 16 *How could these barriers be eliminated?*
- 17 2. *What are the costs and revenues associated with providing these new services?*
- 18 3. *What are the rate implications (if any) on other customer groups?*
- 19 4. *What is the expected timing regarding the implementation of the new services?*

1 **4. EX-FRANCHISE POWER SERVICES**

2 A) EX-FRANCHISE EXISTING SERVICES

3 Existing Transportation Services

4 Union's current core Dawn-Trafalgar transportation service for ex-franchise customers is
5 the M12 transportation service. The current M12 rate schedule is attached as Schedule K.

6 This service provides for transportation service between Dawn and either Kirkwall
7 (interconnects with TCPL for delivery to Chippawa and/or Niagara export points) and
8 Parkway (interconnects with either Enbridge or TCPL). This service is currently fully
9 subscribed.

10

11 Union has recently conducted open seasons to determine market interest for new
12 transmission expansions to be in service by both November 1, 2006 and November 1,
13 2007. Union has received OEB approval to construct additional facilities to be in-service
14 for November 1, 2006. On December 20, 2005 Union applied for OEB approval to
15 construct additional facilities to be in-service for November 1, 2007. Union's facility
16 additions will add approximately 400,000 GJ/d of capacity in 2006 and approximately
17 500,000 GJ/d of capacity in 2007 (if approved by the OEB). Although no Power
18 Customers contracted for capacity for 2006, there are two Power Customers that have
19 contracted for capacity in 2007.

20

21 There are several attributes of the current M12 transportation service that need to be
22 highlighted:

March 20, 2006

- 1 • The rate for this service is cost based.
- 2 • Shippers nominate their use of the service using the four NAESB nomination
- 3 windows.
- 4 • The service is only firm on the timely nomination window. To the extent the
- 5 shipper does not fully nominate to use their capacity on the timely window,
- 6 Union will try to resell the capacity on an interruptible basis. If Union is
- 7 successful in selling capacity that was not nominated by the firm shipper on
- 8 the first window, Union will schedule the interruptible quantities to flow. To
- 9 the extent the firm shipper nominates a higher quantity at a later nomination
- 10 window for that day, Union will not bump the interruptible shipper off the
- 11 system (Union, like TCPL is considered a “non-bumping” pipeline). If Union
- 12 has not sold the unused capacity, and the firm shipper requests a higher
- 13 quantity on a later nomination window, Union will accept the nomination of
- 14 the firm shipper and schedule the higher quantities. Given that any capacity
- 15 not nominated by the firm shipper on the timely nomination window may be
- 16 resold, M12 transportation service is not firm on the last three nomination
- 17 windows of the day.

18

19 Traditionally the M12 transportation service has been used by TCPL, Enbridge and GMi.

20 Combined, these three shippers accounted for more than 95% of contracted M12

21 transportation in 2005. The service has also been historically used by a diverse group of

22 other shippers including Power Customers with facilities in the U.S.

23

1 **Existing Storage Services**

2 Union currently offers storage services to ex-franchise customers under its C1 rate
3 schedule. The C1 rate schedule is attached as Appendix L. A typical C1 firm storage
4 service has the following attributes;

5 • The C1 storage contract has 1.2% firm deliverability. Deliverability refers to
6 the amount of gas that can be withdrawn from the storage account as a
7 percentage of the contracted space. For example, a customer that contracted
8 for 1,000,000 GJ of space with 1.2% deliverability could withdraw a
9 maximum of 12,000 GJ/d.

10

11 • The C1 storage contract is not firm for certain times of the year. For example,
12 withdrawals are not firm in March or April. Likewise, injections are not firm
13 in October and November. These restrictions are due to capacity (asset)
14 limitations.

15

16 • Daily injection and withdrawal rights are reduced if the quantity of gas in the
17 shipper's storage account is above or below predetermined levels. For
18 example, if the amount of gas in the shipper's storage account is below 25%
19 of the total contracted space, the withdrawal capability is reduced from 1.2%
20 to 0.8%. These trigger points are often referred to as "ratchets". Similarly, if
21 the level of inventory is above 75%, the injection rate is reduced from 0.75%
22 to 0.50%.

- 1 • Gas nominated into or out of storage is scheduled on the same four NAESB
2 nomination windows as transportation (North American standard), with the
3 firm entitlement being firm on the first (or “timely”) nomination window only.
4
- 5 • C1 storage service is a discrete, stand alone service. If a shipper also required
6 transportation service, it is contracted for independently.
7

8 The above paragraph describes the common form of storage service currently sold
9 under the C1 rate schedule. Under the existing C1 rate schedule, Union has also
10 provided storage services to meet the shipper’s needs that have parameters that are
11 different than the common form of storage service. For example, Union may provide a
12 storage service that is firm year round, or a service that does not have ratchets.
13

14 Union currently has the ability, under the C1 rate schedules, to provide higher levels of
15 deliverability (for example 5% or 10%). Although available today, few customers have
16 expressed a need, or are prepared to contract for, high deliverability storage. Typically,
17 ex-franchise LDCs use 1.2% deliverability to provide seasonal load balancing. Going
18 forward, there may be additional interest in high deliverability storage by Power
19 Customers and other shippers such as marketers. If this interest materializes, it is
20 likely that Union would need to construct additional facilities to provide this service.
21 To the extent additional facilities are required, the contract term and price will need to
22 be sufficient to support the economic construction of the new facilities.
23

1 C1 storage service is sold using market based rates. The C1 rate schedule has a range
2 rate for service. The maximum rate for storage space is currently \$3/GJ and for storage
3 deliverability is \$3/GJ. Given the commodity value of natural gas changes
4 continuously at Dawn, the value of storage also changes continuously. Union has sold
5 ex-franchise storage at market based rates since approval was granted by the OEB in
6 the E.B.R.O. 456 proceeding in late 1989.

7

8 **B) EX-FRANCHISE NEW SERVICE DEVELOPMENT**

9 **Introduction**

10 Based on all the customer feedback, Union has developed four new services for ex-
11 franchise Power Customers. Given the unique nature of these services, Union will offer
12 them each on a “pilot basis”. If the services work as expected, Union would continue the
13 service offering. The four services are:

14

15 1) F24-T: This service can be added to an existing M12 transportation service.

16 It will provide shippers with six additional nomination windows and firm

17 access to the transportation capacity throughout the day.

18

19 2) Upstream Pipeline Balancing Service (“UPBS”): This service will allow

20 shippers the ability to deliver gas to Union at Dawn at an hourly flow rate

21 equal to 1/24th of the daily total. The deliveries at Dawn remain consistent

22 with the current practice at Dawn and across North America. However, the

1 gas can be nominated to Parkway in the same hourly profile that the Power
2 Customer expects to consume (subject to contractual limits), with zero
3 deliveries during the periods the Power Customer is otherwise not consuming.
4 For example, the Power Customer can deliver to Union at Dawn 48,000 GJ/d
5 of gas at a flow rate of 2,000 GJ/hr (i.e. evenly over the day) and request
6 Union to re-deliver the same 48,000 GJ/d of gas to Parkway at a flow rate of
7 4,000 GJ/hr for the same 12 hours the Power Customer expects to operate.
8 Union notes that in this example, the customer would need to contract for
9 M12 transportation service to support the 4,000 GJ/hr flow rate or 80,000
10 GJ/d.

- 11
- 12 3) Downstream Pipeline Balancing Service (“DPBS”): This service will allow
13 shippers to park and loan gas at Parkway on a firm basis in a gas balancing
14 account. The term park refers to a shipper’s ability to have an ongoing
15 positive balance of natural gas in a balancing account, while the term loan
16 refers to a shipper’s ability to have an ongoing negative balance (i.e. they have
17 borrowed or taken a loan from Union) of natural gas in a balancing account.
18 The service agreement will state the total amount of park and/or loan service
19 available to the shipper. By having gas parked at Parkway or by having the
20 capability to take a loan of gas from Union at Parkway, a Power Customer
21 could maintain a capability at Parkway to remove firm gas from Union’s
22 system on a short notice basis. This service is intended to align Union’s
23 services with TCPL’s proposed FT-SN service.

1 4) F24-S: This service allows shippers to access their firm C1 storage account
2 on a firm basis across all nomination windows, including the additional six
3 windows added as part of the F24-T service. This service can be added to an
4 existing C1 storage service.

5

6 Union finds itself in the very unique position of trying to develop new flexible service
7 options for ex-franchise Power Customers that are not directly connected to the Union
8 system. In fact, most of these new ex-franchise Power Customers will be two pipelines
9 away (i.e. gas leaving Union's system at Parkway will need to flow on TCPL and
10 Enbridge before reaching the Power Customer). Based on Union's high level review of
11 U.S. pipelines, the services proposed by Union for Power Customers two pipelines away
12 are unprecedented within North America. As discussed earlier, most services offered to
13 Power Customers on U.S. pipelines (and by TCPL under FT-SN) are focused on Power
14 Customers directly tied to the pipeline offering the service.

15

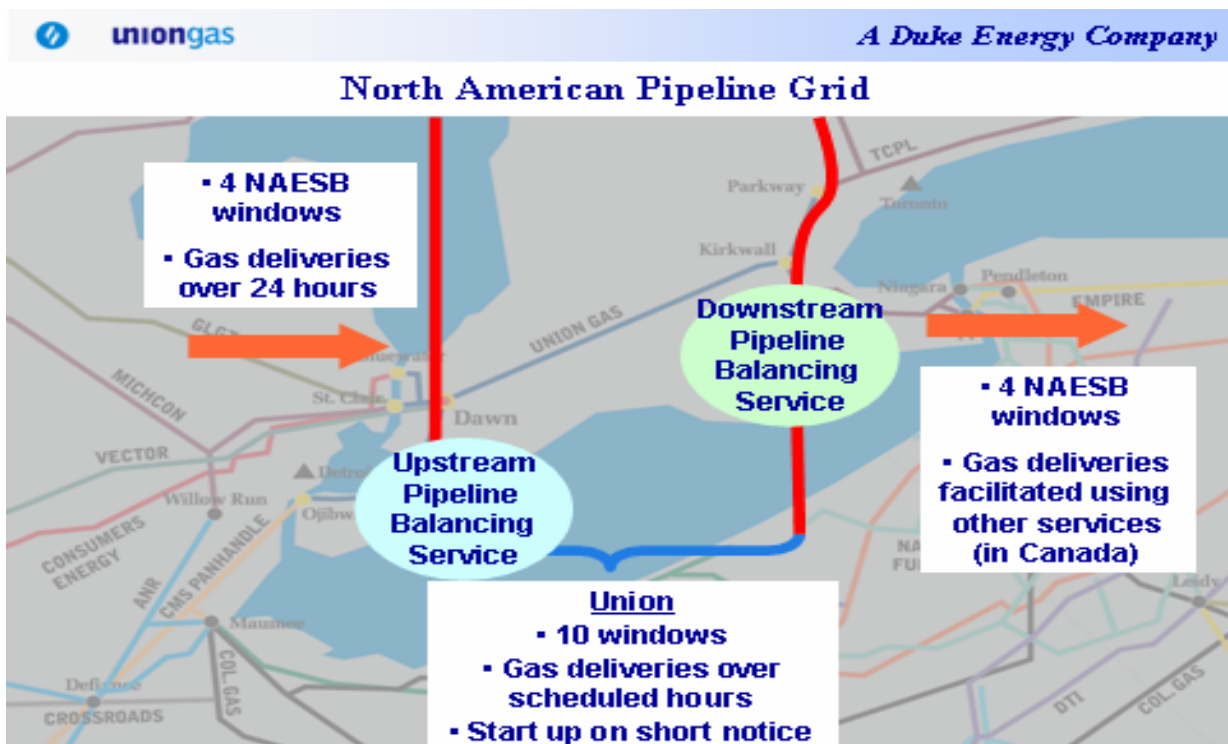
16 Conceptually, Union's UPBS and DPBS provide an interface or buffer between Union
17 and the North American infrastructure that exists upstream and downstream of Union.
18 Union is trying to add flexibility to its services, although at each end of Union's system,
19 the North American system is still operating within the existing NAESB standards.
20 Figure 3 is an illustration showing the UPBS and DPBS as an interface between Union's
21 upstream and downstream pipelines.

22

23

1

Figure 3



2

3 On Union's system, the UPBS and DPBS acts as the interface of Union services with
4 those pipelines upstream and downstream of Union.

5

6 The UPBS, DPBS and F24-S services are all market based storage and load balancing
7 services that can be offered under Union's current C1 rate schedule. The only change
8 required to the C1 rate schedule is an amendment to Schedule B that provides the details
9 of the additional nomination flexibility. The modified C1 rate schedule can be found in
10 Appendix M. The proposed F24-T service does require a rate to be added to the M12 rate
11 schedule and an amendment to Schedule B detailing the additional nomination flexibility.
12 The proposed rate schedule can be found in Appendix N. The following section will
13 provide an overview of each of these four new services in detail.

1 i) **F24-T**2 Service Description

3 The following includes a description of the F24-T service and response to mandatory
4 evidence Question 1: *What are the operational implications / barriers (if any) of*
5 *providing these new services? How could these barriers be eliminated?*

6 At the meeting Union held in August 2005, Power Customers asked Union to develop a
7 service that provided for more nomination windows, and the ability to reserve firm
8 transportation capacity all day. The proposed F24-T service provides shippers with both
9 of these attributes.

10 Nomination Windows – Based on discussions with Power Customers, more frequent
11 nomination windows are required in order for generators to proactively balance
12 (match supply and consumption) throughout the gas day. If supply and
13 consumption do not match, the generator will have an imbalance on one of the
14 interconnecting pipelines depending on how that gas was nominated.

15

16 The proposed new F24-T service would increase the number of standard nomination
17 windows to ten windows from the current NAESB standard of four windows.

18 Table 1 illustrates when each of the ten nomination windows occurs and when the
19 nomination becomes effective.

20

21

22

Table 1
Proposed Nomination Schedule

June 10th Gas Day Nom Cycles	Nom #	Nomination Deadline	Effective Time	Elapsed Hours	Remaining Hours
Timely Nom	1	12:45 June 9	10:00 June 10	0	24
Evening Nom	2	19:00 June 9	10:00 June 10	0	24
10:00	3	10:00 June 10	12:00 June 10	2	22
14:00	4	14:00 June 10	16:00 June 10	6	18
Intra-day 1	5	11:00 June 10	18:00 June 10	8	16
16:00	6	16:00 June 10	18:00 June 10	8	16
Intra-day 2	7	18:00 June 10	22:00 June 10	12	12
23:00	8	23:00 June 10	02:00 June 11	16	8
04:00	9	04:00 June 11	06:00 June 11	20	4
06:00	10	06:00 June 11	08:00 June 11	22	2

In the above table, the NAESB standard nomination windows are shaded and represent nomination numbers 1, 2, 5, & 7. The un-shaded nomination windows are the additional nomination windows available to F24-T shippers.

Under existing NAESB standards, shippers currently have only two opportunities within the current gas day to balance supply and demand for that gas day. Union's proposal extends the number of intraday nominations to eight. Union believes that the addition of these six nomination windows provides Power Customers with significant new flexibility to help manage end of day gas imbalances.

At each of the proposed nomination windows, Union would do a full physical scheduling of the system (firm services) including confirmation of any firm

1 upstream supply and downstream delivery changes. This will provide shippers that
2 contract for the service with additional flexibility while also ensuring Union
3 maintains physical and operational integrity.

4
5 Most of the new proposed nomination windows have a twohour interval between
6 nomination deadline and effective time. For example, from Table 1, Nomination 6
7 is due at 16:00 and is effective at 18:00. This two hour interval reflects the total of:

- 8
- 9 • A one hour requirement to administer the nomination (to accept,
10 confirm and schedule). Union believes that the time required to
11 schedule the nominations for the additional six windows can be
12 reduced to approximately one hour (from the current 3-4 hours
13 needed to schedule the system at the NAESB nomination windows)
14 since the service will be used by a very limited number of shippers;
15 and
 - 16 • Approximately one hour for the transmission system operational
17 response time (i.e. the length of time it takes to increase or decrease
18 compression horsepower and associated pressures at Parkway after
19 receiving notice from a customer of a change in downstream
20 demand) - See Tab 2, Section B page 8, Union's System
21 Operations.
- 22

1 The 2 hour interval is a significant improvement and enhancement compared with
2 the current NAESB standard interval between nomination deadline and effective
3 time of between 4 and 21 hours. This reduced interval will also help shippers better
4 manage end-of-day imbalances.

5
6 Union's proposal to offer six new full nomination windows (ten in total) is a North
7 American industry leading proposal. To maximize the effectiveness of Union
8 offering additional nomination windows, pipeline operators such as TCPL, Great
9 Lakes, Michcon, Panhandle and Vector, and storage operators such as Enbridge
10 Tecumseh, Tribute (both in Ontario), Washington 10 and Bluewater (both in
11 Michigan) and marketers and producers, such as BP and Nexen, will need to be able
12 to manage and offer the same ten windows for firm services. Union is uncertain at
13 this time how willing marketers, upstream and downstream pipelines, and storage
14 operators will be to accommodate these additional nomination windows.

15
16 If industry participants are unwilling to offer the same ten nomination windows,
17 Union can certainly operate with a lesser number of windows. Union is also open to
18 adding additional window(s) subject to consensus among industry participants on
19 which additional nomination window(s) will add value.

20
21 Firm access to services throughout the gas day - Currently, when a shipper contracts
22 for firm ex-franchise M12 transportation service, firm access to the contracted
23 demand is guaranteed only on the timely nomination window (i.e. the timely

1 nomination at 12:45 p.m. of the day prior to gas flow). If a shipper does not
2 nominate 100% of their contract demand at that time, the non-requested capacity is
3 made available to other shippers on an interruptible basis. Should the firm shipper
4 nominate their remaining contracted level of service (up to 100% of contract
5 demand) at a later nomination window, there is no guarantee that the service will be
6 available since Union will not “bump” other firm or interruptible transportation
7 services which are already nominated and confirmed.

8
9 Power Customers have expressed concern regarding firm transportation service not
10 being firm after the first window given that they may not know that far in advance
11 whether they are likely to run or not. As such, they have expressed a need to have
12 access to their firm contracted service throughout the gas day in order to be able to
13 respond to the IESO dispatch direction throughout the gas day.

14
15 The proposed F24-T service would provide firm access to the M12 transportation
16 capacity across all NAESB windows plus the additional six windows being
17 proposed by Union. This will give Power Customers firm access to their capacity to
18 manage their plant operations and to manage end of day gas imbalances.

19
20 Eligibility Criteria

21 Although this service is designed to meet the expressed need of Power Customers, Union
22 would seek to make the service available to other shippers. However, Union’s system
23 has limited capability to provide this service. As discussed under Union’s System

1 Operation section, the Dawn-Trafalgar system has three full pipeline loops except in the
2 Hamilton to Milton area where only two full pipeline loops exist. Union's system
3 integrity and responsiveness to load changes at Parkway will be greatly enhanced
4 following the 2006 expansion when the third pipeline loop is completed in the area as a
5 result of the Hamilton to Milton pipeline expansion. As well, the 2007 expansion (if
6 approved by the Board) will result in additional compression being added at Parkway.
7 After the 2006 loop and the 2007 compressor is added, Union will be able to provide
8 approximately 500,000 GJ/d of the F24-T service.

9

10 Union proposes to initially offer F24-T to those M12 transportation shippers in the 2007
11 open season. This is the first expansion that includes Power Customers. Union does not
12 expect that this offer will result in the full contracting of the 500,000 GJ/d that is
13 available. If there is remaining capacity available, Union will hold an open season to
14 determine if any other existing shippers are interested in this new service.

15

16 Terms and Conditions

17 This new F24-T service would be optional and would be an additive or "bolt on" service
18 to existing M12 transportation contracts. Union proposes that the following terms and
19 conditions apply:

- 20 • The total quantity available will be limited to 500,000 GJ/d with a
21 commencement date of November 1, 2007 (see Implementation Timing
22 below).

23

- 1 • Union's standard transportation renewal policy of one year renewal with two
2 years notice will apply.
- 3 • The minimum initial term will be five years. This will allow Union to recover
4 the development costs.
- 5
- 6 • Currently, Union attempts to sell on an interruptible basis any capacity that is
7 not nominated at the timely window. To the extent that Union is successful,
8 any revenues in excess of forecast revenues are placed in an S&T deferral
9 account (account no. 179-69) and shared on a 75/25% basis with customers
10 and the company. To the extent F24-T shippers have the capacity reserved
11 all day, interruptible sales are not possible. Therefore, shippers that contract
12 for this service will not be eligible to share in S&T deferral account
13 disbursements (as such deferrals relate to their contracted level of service).
- 14
- 15 • Shippers may have both a standard M12 transportation contract and an F24-T
16 contract concurrently. To the extent a M12 transportation shipper wanted the
17 F24-T service to apply to only a portion of an existing or new M12
18 transportation contract, the M12 transportation contract will be split to allow
19 for the enhanced service to apply to the portion chosen.
- 20
- 21 • Shippers using the F24-T service will provide fuel under the M12 rate
22 schedule.
- 23

1 Costs, Revenues and Rates

2 The following includes the proposed rate and response to mandatory evidence Question

3 2: *What are the costs and revenues associated with providing these new services?*

4 Costs –To increase the number of nomination windows from the current four
5 NAESB windows to Union’s proposed ten nomination windows and to
6 accommodate the firm all day services, Union estimates that it will require
7 approximately \$1.870 million in Information Technology (IT) capital and \$1.035
8 million of ongoing operating and maintenance costs. The total annual revenue
9 requirement associated with the IT capital spending and O&M is approximately
10 \$1.712 million.

11

12 The incremental IT capital is associated with necessary enhancements to Union’s
13 Gas Care, Unionline and ConTrax systems. The necessary enhancements include
14 modifications to the existing nomination model to recognize new nomination
15 windows; modifications to the current title transfer matching process;
16 enforcement of elapsed prorated scheduled quantity; validation of hourly
17 contractual entitlements; and improvements to capacity allocation procedures.

18

19 Of the \$1.035 million of incremental O&M to support the additional nomination
20 windows and ensure firm all-day transportation, approximately \$0.945 million
21 relates to additional staffing requirements. The staff additions are in Gas
22 Management Services (4), Gas Control (2) and Operations (4). The remaining

1 \$0.090 million is associated with expected increases in compressor maintenance
2 resulting from providing firm all day service.

3
4 Rates – As indicated above, Union proposes to charge customers contracting for
5 F24-T service the posted Dawn to Parkway/Kirkwall transmission rates appearing
6 on the M12 rate schedule. In addition, Union proposes to charge F24-T service
7 customers an additional charge of \$0.571/GJ/Month (\$0.019/GJ at 100% load
8 factor) to recover the incremental costs associated with providing ten nomination
9 windows and providing firm all day service. Union is proposing changes to the
10 M12 rate schedule to add the F24-T service. These changes include the
11 amendment of the Schedule B to describe the nomination flexibility of the F24-T
12 service and the addition of a F24-T rate within the M12 rate schedule.

13
14 Union has derived the rate assuming that the total incremental revenue
15 requirement will be recovered over 250,000 GJ/day of the 500,000 GJ/day of
16 available capacity. Union would only develop this service if it had firm
17 commitments from shippers for at least 250,000 GJ/d. Union is proposing to
18 recover the entire cost associated with providing ten nomination windows from
19 F24-T customers because the ten nomination window will primarily be used by
20 F24-T customers directly or by other ex-franchise customers providing storage
21 services to F24-T service customers. The derivation of the rate is provided at
22 Appendix O.

23

1 It is possible that a number of years may need to elapse to reach the threshold
2 demand service of 250,000 GJ/day. Therefore, if the Board found that the
3 immediate offering of this service was in the public interest, Union could include
4 the total cost associated with developing this service in the M12 transportation
5 toll.

6
7 Revenues – Union is not able to provide, with any accuracy, a forecast of the
8 revenue associated with F24-T service. Although Union has developed the
9 service in consultation with ex-franchise power producers there is significant
10 uncertainty as to the how much, if any, of the F24-T service will be contracted
11 for. This is the case because of the fluid nature of the market, uncertainty around
12 in-service dates of power plants in the Greater Toronto Area (GTA), the potential
13 future development of the Day Ahead Market and Union’s dependency on other
14 upstream shippers to offer similar nomination windows.

15
16 Union also notes that it will lose the opportunity to earn incremental revenue by
17 selling interruptible services using the firm transportation capacity that is
18 otherwise left empty. Over the last three years, the average unit revenue derived
19 from selling interruptible transportation services is approximately \$0.007/GJ.
20 Assuming Union provides 250,000 GJ/day of F24-T transportation service, the
21 lost revenue is approximately \$0.639 million.

22

23

1 Implications to Other Customers

2 The following is in response to mandatory evidence Question 3: *What are the rate*
3 *implications (if any) on other customer groups?*

4 Because Union is making F24-T service available based on the Dawn–Trafalgar system
5 expansion capacity only, no rate or service impacts to existing customers is expected.

6

7 However, Union does expect that the level of service currently provided to all shippers at
8 the four NAESB windows may not be available at each of the six new nomination
9 windows. As discussed earlier, if a shipper makes a nomination error today, there is
10 enough time for Union’s schedulers to work with affected parties (marketers,
11 interconnecting pipelines, etc) to correct the problem. The time between nomination
12 deadline and effective time for the four NAESB windows (4-21 hours) allows for this
13 manual intervention. Given the new service has reduced the time between nomination
14 deadline and effective time for the six new nomination windows to two hours, with only
15 one hour available for the scheduling/confirmation cycle, there may not be enough time
16 to allow for manual intervention. This new service will not affect the level of shipper
17 service Union currently provides on the four NAESB nomination windows.

18

19 Implementation Timing

20 The following is in response to mandatory evidence Question 4: *What is the expected*
21 *timing regarding the implementation of the new services?*

22

1 Union is proposing a target in service date of November 1, 2007. Union will need
2 approximately one year to develop the new IT systems required to implement this
3 service. Union will not be able to start development of the systems until we have
4 received Board approval for the service and the associated costs to develop the service,
5 and Union has received sufficient shipper interest to justify the service.

6

7 **ii) Upstream Pipeline Balancing Service (“UPBS”)**

8 Service Description

9 The following includes a description of the UPBS service and response to mandatory
10 evidence Question 1: *What are the operational implications / barriers (if any) of*
11 *providing these new services? How could these barriers be eliminated?*

12

13 Currently, shippers nominate the same quantity of gas to be delivered to Union at Dawn
14 that is redelivered to the shipper by Union at Parkway over the gas day. The timely and
15 evening nominations are premised on the gas flowing hourly from Dawn to Parkway
16 based on 1/24th of the daily nomination. Currently, for the two intraday NAESB
17 nominations, the hourly flow rate is adjusted to reflect the quantity of gas requested and
18 the number of hours remaining in the day. For example, at Intra Day 1 (nomination
19 deadline is 11:00 a.m. and effective time of 18:00), if a shipper nominated zero on the
20 earlier windows and nominated 32,000 GJ at 11:00 a.m., the gas would be scheduled as
21 2,000 GJ/hr over the last 16 hours of the gas day. In all cases, quantities scheduled are
22 limited to contracted limits. As discussed earlier, this is a consistent standard across
23 North America.

March 20, 2006

1 Power Customers have expressed the need for non-uniform delivery of gas to the plant
2 over the day on a firm basis. For example, the Power Customer may only want to access
3 firm transportation service at Parkway for the hours they plan to operate (i.e. from 11
4 a.m. to 11 p.m.), and have no deliveries at Parkway for the remainder of the day. The
5 example outlined earlier involved a Power Customer delivering 48,000 GJ/d to Union at
6 Dawn based on a flow rate of 2,000 GJ/hr (for 24 hours), with Union re-delivering to the
7 Power Customer at Parkway the same 48,000 GJ/d but over only 12 hours at a flow rate
8 of 4,000 GJ/hr.

9

10 Union's UPBS will allow Power Customers to receive gas at Parkway based on the hours
11 they actually intend to operate (up to the maximum hourly contracted). Power customers
12 will continue to provide gas to Union at Dawn throughout the day based on an hourly
13 flow rate equal to $1/24^{\text{th}}$ of the daily nomination (subject to intraday adjustments). With
14 the new UPBS service, Power Customers can continue to flow supply to Union at Dawn
15 across the entire gas day, and Union will use Dawn storage to manage the differences
16 between hourly receipts at Dawn and hourly deliveries at Parkway. This becomes an
17 intraday balancing service using Dawn storage.

18

19 The ability for the Power Customer to schedule gas deliveries at Parkway to meet their
20 hours of operation is an additional tool Power Customers will have to help manage plant
21 operations and to help manage end of day gas imbalances.

22

1 Union has limited capability to provide this service today (could likely serve 1,000 –
2 2,000 MW equivalent load). If market interest exceeded this (or if these assets are used
3 for other customer needs), Union would likely need to construct new facilities.

4

5 Eligibility Criteria

6 This optional service would be an “add on” (or “bolt on”) service for those shippers
7 electing either the M12 service or the F24-T service. It is Union’s belief that this service
8 is most effective if added to the F24-T service rather than the M12 service – however
9 both options are available.

10

11 Terms and Conditions of Service

12 Union proposes that the following Terms and Conditions apply:

13 • The term will be negotiated as part of the service negotiation. The minimum
14 term is one year. To the extent Union needs to build assets to provide this
15 service, a long term contract would be required.

16

17 • The service does not have an automatic renewal right.

18

19 • The service will be contracted independently from M12 and F24-T service.

20

21 • The intraday imbalance parameters will be negotiated based on the needs of
22 the shipper. However, hours of redelivery at Parkway on any day would not
23 be less than 12.

1 • The shipper's nomination would contain the total amount of gas being
2 requested for the day, plus the profile of the requested hourly deliveries to
3 Parkway.

4
5 • The service is firm.

6
7 Cost, Revenues and Rates

8 The following includes the proposed rate and response to mandatory evidence Question
9 2: *What are the costs and revenues associated with providing these new services?*

10

11 Costs – Union estimates that it will require approximately \$3.850 million in IT capital
12 to modify its gas management systems (Gas Care and Unionline) to offer the UPBS
13 and DPBS services. The enhancements include modifications to the existing
14 nomination module to recognize hourly nominations and allocations, automation of
15 interconnect confirmation and balancing, procedures and improvements to capacity
16 scheduling procedures. The portion attributable to the UPBS service is approximately
17 \$1.925 million. The incremental annual revenue requirement associated with the
18 development of the UPBS services is approximately \$0.695 million.

19

20 Rates – As indicated above, Union is proposing to provide the UPBS under the C1
21 rate schedule at market based rates. This treatment is consistent with that of other ex-
22 franchise Dawn based storage services that are sold using Union's C1 rate schedule.

1 As discussed earlier, the existing C1 rate schedule has a range of rates that give Union
2 the flexibility to negotiate market based storage prices. No change is required to the
3 C1 rate schedule to provide this service.

4
5 Should there be sufficient interest to develop the service; Union will bear the risk
6 associated with the cost of developing the service. Alternatively, if the Board found
7 that the immediate offering of this service was in the public interest, Union could
8 include the total cost associated with developing the new service in the M12
9 transportation toll.

10

11 Revenues - Union is not able to provide a forecast of the revenue associated with the
12 UPBS. This is because of the fluid nature of the market uncertainty around in-service
13 dates of power plants in the GT and the potential future development of the Day
14 Ahead Market. It is unclear when or if shippers may require this service.

15 Additionally, Union is not able to predict the market price for this service at this time.

16

17

18 Implication to Other Customer Groups

19 The following is in response to mandatory evidence Question 3: *What are the rate*
20 *implications (if any) on other customer groups?*

21

1 As a result of implementing this service, interruptible activity involving storage injections
2 and/or withdrawals may be impacted due to system constraints. The impact on both in-
3 franchise and ex-franchise customer groups will be more pronounced in months of peak
4 storage activity. This impact is no different than the impact that would result from
5 existing firm storage customers using their existing contractual rights more extensively.

6

7 Implementation Timing

8 The following is in response to mandatory evidence Question 4: *What is the expected*
9 *timing regarding the implementation of the new services?*

10

11 Union will target an in service date of November 1, 2007 provided no new assets are
12 required to provide this service. Union will need approximately one year to develop the
13 new IT systems required to implement this service and approximately 24 months to build
14 additional assets if required. Union would only develop this service if it had sufficient
15 interest in the service to support the development.

16

17

18 Conclusion

19 The UPBS is a response to the requests made by Power Customers for hourly deliveries
20 at Parkway. The service acts as an interface or buffer between the pipelines upstream of
21 Dawn (operating on the North American standards which deliver gas to Union at an
22 hourly rate equal to 1/24th of the daily nomination) and the new flexible balancing service
23 as requested by Power Customers to meet their intraday consumption requirements. The

1 service provides Power Customers with a new balancing service which helps them
2 operate their plant and manage daily pipeline imbalances. The service may also be of
3 value to other market participants that will serve Power Customers (Marketers, LDCs
4 etc).

5

6 **iii) Downstream Pipeline Balancing Service (“DPBS”)**

7 Service Description

8 The following includes a description of the DPBS service and response to mandatory
9 evidence Question 1: *What are the operational implications / barriers (if any) of*
10 *providing these new services? How could these barriers be eliminated?*

11

12 In recent discussions with Power Customers, they have requested the ability to ramp up
13 consumption between nomination windows (i.e. between the ten nomination windows
14 proposed by Union) on a firm short notice basis. Under the proposed F24-T service
15 described above, shippers will have ten opportunities to change their required flow at
16 both Dawn and Parkway. As discussed earlier, given the expected scheduling timeline of
17 the electricity system by the IESO, these ten nomination windows (with the six new
18 nomination windows having only a two hour interval between nomination deadline and
19 effective time) should, in most cases, provide sufficient flexibility.

20

21 Under existing system operations and without any other service, in the event a Power
22 Customer was required to bring a plant on line in between nomination windows, the

1 Power Customer will need to contact the three gas control rooms (TCPL, Union and
2 Enbridge) and request service. The three control rooms would review the current
3 operations and, if the situation allowed, would authorize the increased consumption, all
4 on a best efforts basis. This is consistent with the process used by large industrials and
5 power plants to co-ordinate unanticipated changes in their consumption today. However,
6 this process does not provide the firm ability desired to bring a plant on line between
7 nomination windows to meet Power Customers requirements.

8

9 Closely related to the need to be able to bring a power plant on line on short notice,
10 Power Customers also requested the ability to use TCPL's proposed FT-SN service with
11 deliveries from Union at Parkway. TCPL's proposed FT-SN service is a short notice
12 firm transportation service designed to meet the potential short notice needs of Power
13 Customers. With the proposed TCPL FT-SN service, TCPL provides the shipper the
14 ability to "nominate" their expected hourly flow rate every fifteen minutes. The word
15 "nominate" in this context has a different meaning than that used by Union in this
16 evidence. In this case, TCPL is only looking for "confirmation" that the gas is available
17 from Union at Parkway. There will not be a full scheduling or confirmation of activity
18 on the TCPL or Union systems to access new supply or confirm the actual source of gas
19 every fifteen minutes. The proposed FT-SN service is currently designed such that the
20 entire TCPL system will still be scheduled on the four NAESB nomination windows.

21

22 For Union to confirm quantities at Parkway to meet the above requirements, Union would
23 also have to confirm and schedule physical flows at Dawn. As described earlier, in

1 addition to the one hour for scheduling, Union will require a one hour period to configure
2 and adjust the system for the higher flow rates. It is not possible for the system to be
3 scheduled and to physically respond in less than two hours from the time a nomination is
4 received.

5

6 Recognizing the need customers have identified to be able to change flows on a firm
7 short notice basis, Union is proposing a new service – Downstream Pipeline Balancing
8 Service (“DPBS”). The DPBS is intended to provide a service with the flexibility
9 necessary for Power Customers to be able to start up on a firm basis on short notice. The
10 service is also intended to allow a Power Customer to align services between Union and
11 TCPL’s proposed FT-SN (or other services offered by TCPL and/or Enbridge) if
12 required. The DPBS provides the interface or buffer between Union’s power services
13 and those services provided by downstream pipelines.

14

15 The DPBS is effectively a firm park and loan service at Parkway. The term park refers to
16 a shipper’s ability to have an ongoing positive balance of natural gas in a balancing
17 account, while the term loan refers to a shipper’s ability to have an ongoing negative (i.e.
18 they have borrowed or taken a loan from Union) balance of natural gas in a balancing
19 account. The service agreement will outline and define the total amount of park and/or
20 loan service available to the shipper. It is expected that a Power Customer may want the
21 ability on any day to either park up to two hours of contract demand or to take a loan of
22 up to two hours of contract demand at Parkway. The park and loan capability is intended
23 to provide a bridge between nomination windows to allow the Power Customer to start up

1 on short notice. The Power Customer will be able to plan and manage their gas flows
2 each day to end the day with a quantity in the balancing account that will allow them to
3 start up the next day on short notice.

4

5 Provided the Power Customer proactively kept a balance in the account above the
6 minimum, they would be able to start up on a firm basis using the DPBS service. For
7 example, if a Power Customer had contracted for the capability to park or loan 2 hours of
8 gas (equal to two hours of contract demand), and they had previously (i.e. the day before)
9 parked the equivalent of one hour of contract demand, the Power Customer would have
10 the capability to supply their plant (without having to nominate any new supply from
11 Dawn) for three hours. The three hours represents the equivalent of one hour of gas they
12 had previously parked, plus the contractual right to take a loan from Union equal to two
13 hours of contracted demand. Both the park and loan service would be firm.

14

15 Union will be able to confirm whether the quantities are or are not available at Parkway
16 with TCPL and Enbridge every fifteen minutes based on the total of the capability of: 1)
17 the balance in the shipper's DPBS and 2) any gas previously nominated for delivery to
18 Parkway from Dawn using Union's UPBS and F24-T services. Union will not be able to
19 schedule or confirm any new quantities at Dawn at each of these fifteen minute intervals.
20 However, this service gives the Power Customer service flexibility, which if used
21 properly, will allow them to start up or shut down on short notice. It also allows them
22 access to the proposed TCPL FT-SN service if they elect to do so.

23

1 Eligibility Criteria

2 This service is optional, and could be added to the M12 or F24-T services. Power
3 Customers contracting for all three new services, F24-T, UPBS and DPBS would have
4 access to significant flexibility to meet their plant requirements.

5

6 Union will have limited capability to provide this service. Union will be able to provide
7 a two hour park and two hour loan service for at least the equivalent of 1,000 MW of
8 power load in 2007 and growing to 3,000 MW in the GTA as new plants are bought on
9 line beyond 2007. This is a competitive service that will compete with many other
10 options from TCPL, Enbridge, and the Marketers and Producers.

11

12 Terms and Conditions

13 Union proposes that the following terms and conditions apply:

- 14
- 15 • The term for this service will be negotiated between shipper and Union, with a
16 minimum term of 1 year.

 - 17 • This service would be contracted independently from M12, F24-T, and UPBS
18 services.

 - 19
 - 20 • The total park and loan capability will be negotiated between shipper and
21 Union. The base service will have the capability to provide the equivalent of
22 two hours of loans and two hours of parking (based on the contracted
23 transportation demands) on an ongoing basis.

- 1 • The ability of a shipper to take a loan of gas will be dependant upon having
2 available credit. Alternatively, the service could be structured as a four hour
3 parking service.
4
- 5 • The shipper's nomination will include its hourly consumption for the day
6 being nominated. Further, Union would "confirm" flow changes for each
7 fifteen minute window to the shipper, TCPL and Enbridge that the gas is
8 available or not. The "confirmation" of gas availability will be based solely
9 on the amount of gas available from the DPBS combined with any gas
10 scheduled to flow or already flowing from Dawn to Parkway.
11
- 12 • The maximum hourly flow into or out of the DPBS will equal the maximum
13 hourly flow under the M12 transportation service.
14
- 15 • This service is intended to match up with TCPL's proposed FT-SN service.
16
- 17 • Other services at Parkway (such as title transfers) will only be available on the
18 ten nomination windows, provided downstream operators can confirm.
19
- 20 • Service is firm.
21

1 This service will provide those shippers that require short notice service with the tools
2 they need at Parkway to properly manage both their plant operation and daily gas
3 imbalances.

4

5 Costs, Revenues, and Rates

6 The following includes the proposed rate and response to mandatory evidence Question
7 2: *What are the costs and revenues associated with providing these new services?*

8 Costs – As indicated above, Union estimates that it will require approximately \$3.85
9 million in IT capital to modify its gas management systems (Gas Care and
10 Unionline) to offer the UPBS and DPBS services. The enhancements include
11 modifications to the existing nomination module to recognize hourly nominations
12 and allocations; automation of interconnect confirmation and balancing procedures;
13 and improvements to capacity scheduling procedures. The portion attributable to
14 the DPBS service is approximately \$1.925 million. The incremental annual revenue
15 requirement associated with the development of the DPBS service is approximately
16 \$0.695 million

17

18 Rates – The DPBS is a firm park and loan service at Parkway. Union therefore
19 proposes to offer the DPBS, under the C1 rate schedule, at market based rates. As
20 discussed earlier, the C1 rate schedule has range rates that give Union the flexibility
21 to negotiate market based pricing for balancing services. No changes to the C1 rate
22 schedule are required to provide this service.

1 Should there be sufficient interest to develop the service; Union will bear the risk
2 associated with the cost of developing the service. Alternatively, if the Board found
3 that immediate offering of this service was to be in the public interest, Union could
4 include the total cost associated with developing this new service in the M12
5 transportation toll.

6
7 Revenues - Union is not able to provide a forecast of the revenue associated with the
8 DPBS. This is because of the fluid nature of the market uncertainty around in-
9 service dates of power plants in the GTA and the potential future development of
10 the Day Ahead Market. It is unclear when or if shippers may require this service.
11 Additionally, Union is not able to predict the market price for this service at this
12 time.

13
14 *Implication for Other Customer Groups*

15 The following is in response to mandatory evidence Question 3: *What are the rate*
16 *implications (if any) on other customer groups?*

17
18 As a result of implementing this service, interruptible activity involving storage injections
19 and/or withdrawals may be impacted due to system constraints. The impact on both in-
20 franchise and ex-franchise customer groups will be more pronounced in months of peak
21 storage activity. This impact is no different that the impact of existing firm storage
22 shippers using their existing contracts at higher load factors.

1 Implementation Timing

2 The following is in response to mandatory evidence Question 4: *What is the expected*
3 *timing regarding the implementation of the new services?*

4

5 Union will target an in service date of November 1, 2007. Union will need
6 approximately one year to develop the new IT systems required to implement this
7 service. Union would only develop this service if it had sufficient interest in the service
8 to support the development.

9

10 iv) **F24-S**

11 Service Description

12 The following includes a description of the F24-S service and response to mandatory
13 evidence Question 1: *What are the operational implications / barriers (if any) of*
14 *providing these new services? How could these barriers be eliminated?*

15

16 During consultations with Power Customers, Union received feedback that a storage
17 service complementary to the F24-T service (firm all day, additional nomination
18 windows) would provide value and flexibility. Union is therefore proposing the F24-S
19 storage service to provide this flexibility. The F24-S service will give shippers firm
20 access to storage space and deliverability, up to the daily contracted quantities, across all
21 ten nomination windows. This storage service provides a higher value to contract

1 holders because of the ability to increase the injections to or withdrawals from their
2 storage account throughout the day on a firm basis.

3

4 Eligibility Criteria

5 This service is an optional enhancement that is an “add on” (or “bolt on”) to either
6 existing or new C1 storage contracts. Shippers do not have to contract for M12, F24-T,
7 UPBS or DPBS service to qualify for this service.

8

9 Terms and Conditions

10 Union proposes that the following terms and conditions apply:

- 11 • Access to this service would be available on the same ten nomination
12 windows available for the F24-T service.
- 13
- 14 • Gas nominated for this service will be scheduled based on an equal hourly
15 basis across the remaining hours of the day.
- 16
- 17 • Applicable to the firm components of the storage service, subject to maximum
18 hourly contracted limits.
- 19
- 20 • The term will be for the term of the existing C1 storage contract. The
21 minimum term will be one year.

- 1 • The contracted space and deliverability parameters will be negotiated as per
2 the C1 storage service. Deliverability of 1.2 to 10% will be available, subject
3 to asset availability.

4
5 Costs, Revenues, Rates

6 The following includes the proposed rate and response to mandatory evidence Question
7 2: *What are the costs and revenues associated with providing these new services?*

8
9 Costs – As indicated above, customers that contract for the F24-S service will have
10 access to the same ten nomination windows as those customers contracting for F24-T.
11 To increase the number of nomination windows from the current four NAESB
12 windows to Union’s proposed ten nomination windows and to accommodate the firm
13 all day services, Union estimates that it will be require approximately \$1.870 million
14 in IT capital and \$1.035 million of ongoing operating and maintenance costs. The
15 total annual revenue requirement associated with the IT capital spending and O&M is
16 approximately \$1.712 million. Union is proposing to recover the total revenue
17 requirement associated with providing ten nomination windows from F24-T
18 customers because the ten nomination window will primarily be used by F24-T
19 shippers directly or by other ex-franchise shippers providing storage services to F24-
20 T service shippers.

21

1 Rates - This service will be offered under Union's C1 rate schedule at market based
2 rates. Depending on the market demand for this service, Union may need to purchase
3 additional services or develop additional assets. The only change required to the C1
4 rate schedule is an amendment to Schedule B that details the additional nomination
5 flexibility.

6
7 Revenues - Union is not able to provide a forecast of the revenue associated with the
8 F24-S service. This is because of the fluid nature of the market and uncertainty
9 around in-service dates of power plants in the GTA and the potential future
10 development of the Day Ahead Market. It is unclear when or if shippers may require
11 this service. Additionally, Union is not able to predict the market price for this
12 service at this time.

13

14 *Implications for Other Customers*

15 The following is in response to mandatory evidence Question 3: *What are the rate*
16 *implications (if any) on other customer groups?*

17

18 As a result of implementing this service, interruptible activity involving storage injections
19 and/or withdrawals may be impacted due to system constraints. The impact on both in-
20 franchise and ex-franchise customer groups will be more pronounced in months of peak
21 storage activity. This impact is no different than the impact that would result from
22 existing firm storage customers using their existing contractual rights more extensively.

1 Implementation Timing

2 The following is in response to mandatory evidence Question 4: *What is the expected*
3 *timing regarding the implementation of the new services?*

4
5 Union will target an in service date of November 1, 2007. Union will need
6 approximately one year to develop the new IT systems required to implement this
7 service. Union will not be able to start development of the systems until the Board
8 approves the F24-T and F24-S services and Union has received sufficient shipper interest
9 to justify and support the development of the F24-T service.

10

11 v. Ex-Franchise New Service Summary

12 Union has been careful not to adopt the common U.S. practise of offering Power
13 Customers enhanced services through the bundling of pipeline services. To the contrary,
14 Union has focused on opening up market opportunities to all industry participants by not
15 bundling services. Each of the four new services can be contracted individually or in
16 combination with each other. This will allow other market participants the opportunity to
17 develop new services for Power Customers at Dawn. Irrespective of whether other
18 market participants adopt the additional nomination windows proposed by Union, Union
19 believes Power Customers will still find value in having access to the ten nomination
20 windows. The ten nomination windows will allow Union to schedule late day changes in
21 supply and demand as requested by the Power Customers within the contracted levels of
22 F24-T and F24-S.

23

March 20, 2006

1 Union believes that the four new power services developed by Union meet the current
2 needs of Power Customers. However, Union is conscious that the IESO is working
3 towards the development of a Day Ahead Market, which may not require the same
4 complexity of natural gas services that have been requested to date. Unfortunately,
5 development of new natural gas services may be required in advance of the completed
6 industry consultation, process design and implementation required for the Day Ahead
7 Market. Union is cautious that any natural gas services and the associated development
8 and implementation costs that are designed to meet the current IESO framework may not
9 be required in the long term. It is important to consider that any costs to develop these
10 services should be measured against the value of the new services.

11

12 **C. RESPONDING TO THE PROCEDURAL ORDER ISSUE I – EX-FRANCHISE SERVICES**

13 The following sections specifically address the mandatory evidence for each of the six
14 services in the Board’s Procedural Order as they relate to Union’s “ex-franchise”
15 services. Earlier in this evidence, Union similarly addressed “in-franchise” services.

16

17 *1. More frequent nomination windows for distribution, storage and*

18 *transportation that correspond with the nominations of upstream pipelines*

19 *that connect to the Ontario gas system.*

20 As outlined above, Union is proposing to introduce three new services that
21 address the potential requirement by Power Customers for additional
22 nomination windows. The three new services are the F24-T service, the F24-S
23 service and the Downstream Pipeline Balancing Service.

1 The proposed F24-T service will add six windows to the current North
2 American standard of four NAESB nomination windows for Dawn to Parkway
3 service. The F24-T service is an optional enhanced service that can be added to
4 a base M12 transportation service. In addition to more nomination windows,
5 the F24-T service also adds a feature that reserves firm transportation service
6 for the Power Customer throughout the day. This is in contrast to the current
7 M12 transportation service that is firm only on the first NAESB window.

8
9 The F24-S service does for storage what F24-T does for transportation. It
10 allows transactions in and out of storage on each of the proposed ten
11 nomination windows. It also provides for the reservation of firm injection and
12 withdrawal rights throughout the day, rather than the current practice of being
13 firm on the first nomination window only.

14
15 The term nomination is often used loosely within the industry and can have
16 different meanings depending on the pipeline. In Union's view, the use of the
17 term should be used to reflect the full nomination process only, as described in
18 Tab 2 Section A of this evidence. For both the F24-T and F24-S services,
19 Union is proposing to do a full scheduling of firm services at Dawn for each of
20 the ten nomination windows. By doing a full scheduling, other market
21 participants have the opportunity to participate in this market at each of the ten
22 nomination windows (including upstream/downstream pipelines, 3rd party
23 storage providers, marketers and producers).

1 Effectively, Union is proposing to open up the market to facilitate transacting
2 ten times per day vs. the current four. Union believes the ten full nomination
3 windows are an industry leading service that will provide significant flexibility
4 to Power Customers and other market participants that serve Power Customers.
5 The Board's question specifically referenced "that correspond with the
6 nominations of upstream pipelines that connect to the Ontario gas system". As
7 noted, there are, to Union's knowledge, no upstream pipelines connecting to
8 Ontario that provide for full nomination and pipeline scheduling other than the
9 four standard NAESB windows.

10
11 The third service proposed by Union is the Downstream Pipeline Balancing
12 Service ("DPBS"). As described earlier, this service is a firm park and loan
13 service at Parkway. Power Customers that contract for this service will be able
14 to manage their account balance each day to allow for a certain level of supply
15 to be available on short notice at Parkway. This service also allows the Power
16 Customer to align Union's M12 or F24-T service with TCPL's proposed FT-
17 SN service. Power Customers will be able to "nominate" on short notice
18 (fifteen minute intervals) for supply at Parkway. In this case, the term
19 "nominate" has a restricted meaning. As previously discussed, Union would
20 not be able to complete a full nomination and pipeline reschedule of supply
21 every fifteen minutes. Rather, Union will be able to confirm to the Power
22 Customer, TCPL and Enbridge that the supply being requested by the Power
23 Customer is available at Parkway based on the combined supply available

1 through earlier nominated quantities that had been scheduled to Parkway, plus
2 the Power Customer's contractual capability from their DPBS. This service
3 will allow Power Customers the ability to access firm supply on a short notice.
4 As outlined above, Union will need to make minor changes to its existing M12
5 and C1 rate schedules to reflect these new services.

6
7 Therefore, Union believes that it has, through the proposed introduction of
8 these three new services, responded to the Board's request. Union's proposal
9 is industry leading, especially considering that the services are being designed
10 to meet the needs of Power Customer located two pipelines downstream from
11 Union's system.

12
13 2. *Firm high deliverability service from storage with customer options for*
14 *1.2%, 5% and 10%.*

15 Union currently offers ex-franchise shippers market based storage under the
16 C1 rate schedule with deliverability rates ranging from 1.2% to 10%. As such,
17 firm high deliverability storage services are available and no changes are
18 required to the storage service or rate schedule.

19
20
21 3. *Gas Storage and distribution offered as discrete services.*

22 Union currently offers ex-franchise customers storage service independent of
23 transportation service. There is no requirement for a F24-T shipper to

1 contract for F24-S service (unlike the U.S. experience) or vice-versa. In fact, it
2 is expected that Power Customers may want to contract for F24-T service but
3 may prefer to have marketers provide storage and other load balancing services
4 using Union or other third party contracted assets and services. Again, the
5 services are designed to provide flexibility to all market participants and to
6 allow other parties the ability to participate on each of the ten nomination
7 windows. No changes are required to the service or rate schedule to allow for
8 storage and transportation services to be contracted for as discrete services.

9
10 4. *Inter-franchise movement of gas (i.e., the ability to access services across*

11 *Ontario, whether to a customer's own account or as a sale to a third party).*

12 The current M12 transportation service provides shippers with full flexibility
13 to move gas across Union's system to the TCPL and Enbridge systems. The
14 service is a gateway between Dawn and the two interconnecting operators at
15 Parkway, Enbridge and TCPL. The M12 transportation service helps facilitate
16 the inter-franchise movement of gas.

17
18
19
20 5. *Redirection of gas to a different delivery point on short notice (i.e., the*

21 *ability to redirect or acquire gas on short notice to a different delivery*
22 *point).*

1 The M12 transportation service is simply a service connecting two points –
2 Dawn and Parkway. The M12 transportation service by itself will not help
3 redirect gas. However, the F24-T service proposal with ten nomination
4 windows and firm capacity all day can help facilitate the redirection of gas,
5 provided TCPL and Enbridge adopt similar nomination windows for
6 scheduling their systems.

7

8 6. *The ability to transfer the title of gas in storage (i.e., the title transfer in gas*
9 *storage is treated as an administrative matter instead of a physical*
10 *withdrawal or injection of gas).*

11 Union understands that this question refers to the title transfer of gas within in-
12 franchise storage accounts. Union has responded to this question in In-
13 franchise Power Services, Responding to the Procedural Order Tab 3 Pages 32-
14 38.

15

16 Responses to the following questions, where applicable, are included in the New Ex-
17 Franchise Services section Tab 4 Section B.

18 1. *What are the operational implications / barriers (if any) of providing these new*
19 *services? How could these barriers be eliminated?*

20 2. *What are the costs and revenues associated with providing these new services?*

21 3. *What are the rate implications (if any) on other customer groups?*

22 4. *What is the expected timing regarding the implementation of the new services?*

1 **5) M12 PREMIUM**

2 The following evidence is in response to Procedural Order 2 Issue Number III,
3 Transportation capacity bidding process and allocation which states: *Should the Board*
4 *allow a gas transmitter to charge a premium above costs for gas transmission services*
5 *and, if so, how should that premium be allocated?*

6

7 As part of the 2006 and 2007 open season processes, Union provided potential shippers
8 with flexibility in how they were able to bid for Union's M12 transportation service.
9 Specifically, shippers were provided the opportunity to differentiate their bid by
10 committing to a longer term and/or a rate premium. Shippers were advised that bids
11 would be prioritized and awarded based on the highest value, where value was defined as
12 the product of the current M12 transportation rate inclusive of any premium multiplied by
13 the term. Minimum bid requirements specified a term of ten years at the posted M12
14 transportation rate. This optional bid flexibility was provided to shippers for the
15 following reasons:

- 16 • In the non binding open season held in August/ September of 2004, Union had
17 total bid interest in excess of 3,000,000 GJ/d. Union could not build this
18 amount of additional capacity in any one phase of expansion. Union
19 recognized that to the extent this level of interest was shown as part of a
20 subsequent binding open season, it would have to prioritize bids and award
21 capacity based on those bids having the highest value. Further, there would be
22 a high likelihood of needing to prorate capacity when bids of equal value were
23 received.

- 1 • Union was made aware that certain shippers were reluctant or unable to bid
2 for periods longer than ten years and enquired as to other available options to
3 differentiate their bids. Offering the ability to also bid a rate premium
4 provided those shippers an option that allowed them to reflect the value of
5 transportation to their company and to compete against those shippers willing
6 and able to bid longer term. Union considered this fair from a capacity bidding
7 perspective.
- 8 • Union was also made aware that certain shippers (for example power plants)
9 would have difficulty to the extent that their capacity requests were prorated.
10 Prorating of capacity would occur if two or more shippers had an identical
11 bid, and Union could not build and award the total quantity requested. In this
12 case, the available capacity would be prorated across the shippers with
13 identical bids. For example, it would be difficult for a Power Customer to
14 operate if they had requested 100,000 GJ/d of capacity and were awarded only
15 10,000 GJ/d. By providing the flexibility to differentiate bids on both term
16 and rate premium, the probability of “tied” bids and prorated capacity was
17 reduced.
- 18
- 19 • The premium bid for capacity awarded in Phase 1 has been included in the
20 revenue forecast for 2007. This premium will reduce the rate for all firm
21 users of the Dawn–Trafalgar system.

- 1 • Union was granted authority to negotiate rates different than the posted price
2 in the RP-1999-0017 proceeding. The current approved M12 Rate Schedule
3 includes this flexibility.

4
5 Four shippers in the 2006 expansion choose to bid a premium to the M12 transportation
6 rate, totalling \$143,000/year. The full premium is included in the 2007 revenue forecast.
7 Only one shipper bid a premium in the 2007 expansion, totalling \$6,800/year. All
8 shippers that met at least the minimum bid requirements (ten year term and M12 rates)
9 were ultimately awarded capacity in both the Phase 1 and Phase 2 expansions.

10

11 Union's intent, by allowing this optional flexibility, was to treat shippers fairly and to
12 ensure that shippers unable to bid longer terms were in no way disadvantaged.

APPENDIX A – RATE T1

STORAGE AND TRANSPORTATION RATES FOR CONTRACT CARRIAGE CUSTOMERS

Availability

Available to customers in Union's Southern Delivery Zone.

(B) Applicability

To a customer

- a) whose combined firm and interruptible service minimum annual transportation of natural gas is 5 000 000 m³ or greater; and
- b) who enters into a Carriage Service Contract with Union for the transportation or the storage and transportation of Gas for use at facilities located within Union's gas franchise area; and
- c) who has meters with electronic recording at each Point of Consumption; and
- d) who has site specific energy measuring equipment installed at each Point of Consumption that will be used in determining energy balances; and
- e) for whom Union has determined transportation and/or storage capacity is available.

For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the customer's contiguous property will be used, irrespective of the number of meters installed.

(C) Rates

The following rates shall be charged for all quantities contracted or handled as appropriate. The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

STORAGE SERVICE:

	Demand Charge <u>Rate/GJ/mo</u>	Commodity Charge <u>Rate/GJ</u>	<u>For Customers Providing Their Own Compressor Fuel</u>	
			<u>Fuel Ratio</u>	<u>Commodity Charge Rate/GJ</u>
a) Annual Firm Storage Space Applied to contracted Maximum Annual Storage Space	\$0.010			
b) Annual Firm Injection/Withdrawal Right: Applied to the contracted Maximum Annual Firm Injection/Withdrawal Right Union provides deliverability Inventory	\$1.966			
Customer provides deliverability Inventory (4)	\$1.023			
c) Incremental Firm Injection Right: Applied to the contracted Maximum Incremental Firm Injection Right	\$1.023			
d) Annual Interruptible Withdrawal Right: Applied to the contracted Maximum Annual Interruptible Withdrawal Right	\$1.023			

1

	Demand Charge <u>Rate/GJ/mo</u>	Commodity Charge <u>Rate/GJ</u>	<u>For Customers Providing Their Own Compressor Fuel</u>	
			<u>Fuel Ratio</u>	<u>Commodity Charge Rate/GJ</u>
e) Withdrawal Commodity Paid on all quantities withdrawn from storage up to the Maximum Daily Storage Withdrawal Quantity		\$0.056	0.631%	\$0.004
f) Injection Commodity Paid on all quantities injected into storage up to the Maximum Daily Storage Injection Quantity		\$0.056	0.631%	\$0.004
g) Short Term Storage / Balancing Service Maximum		\$3.000		

Notes:

1. Demand charges for Annual Services are paid monthly during the term of the contract for not less than one year unless Union, in its sole discretion, accepts a term of less than one year. Demand charges apply whether Union or the customer provides the fuel.
2. Annual Firm Injection Rights are equal to 100% of their respective Annual Firm Withdrawal Rights. Injection Rights in excess of the Annual Firm Injection Rights will be charged at the Incremental Firm Injection Right.
3. Storage Space and Withdrawal Rights are not assignable to any other party without the prior written consent of Union. Storage and withdrawal rights are for the exclusive purpose of meeting the requirements of the specific locations included in each contract.
4. Deliverability Inventory being defined as 20% of annual storage space.
5. Short Term Storage / Balancing Service is:
 - i) a combined space and interruptible deliverability service for short-term or off-peak storage in Union's storage facilities, OR
 - ii) short-term firm deliverability, OR
 - iii) a component of an operational balancing service offered.

In negotiating the rate to be charged for service, the matters that are to be considered include:

- i) The minimum amount of storage service to which a customer is willing to commit,
- ii) Whether the customer is contracting for firm or interruptible service during Union's peak or non-peak periods,
- iii) Utilization of facilities, and
- iv) Competition

2

1
2

TRANSPORTATION CHARGES:

	<u>Demand Charge Rate/m³/mo</u>	<u>Commodity Charge Rate/m³</u>	<u>For Customers Providing Their Own Compressor Fuel</u>	
			<u>Fuel Ratio (5)</u>	<u>Commodity Charge Rate/m³</u>
a) Annual Firm Transportation Demand				
Applied to the Firm Daily Contract Demand				
First 140,870 m ³ per month	16.9379			
All over 140,870 m ³ per month	12.2359			
b) Firm Transportation Commodity				
Paid on all firm quantities redelivered to the customer's Point(s) of Consumption				
First 2,360,653 m ³ per month		0.3151	0.584%	0.1336
All over 2,360,653 m ³ per month		0.2598	0.584%	0.0783
c) Interruptible Transportation Commodity				
Paid on all interruptible quantities redelivered to the customer's Point(s) of Consumption				
Maximum		2.6211¢	0.584%	2.5658¢

Notes:

1. All demand charges are paid monthly during the term of the contract for not less than one year unless Union, at its sole discretion, accepts a term of less than one year. Demand charges apply whether Union or the customer provides the fuel.
2. In negotiating the rate to be charged for the transportation of gas under Interruptible Transportation, the matters that are to be considered include:
 - a) The amount of the interruptible transportation for which customer is willing to contract,
 - b) The anticipated load factor for the interruptible transportation quantities,
 - c) Interruptible or curtailment provisions, and
 - d) Competition.
3. In each contract year, the customer shall pay for a Minimum Interruptible Transportation Activity level as specified in the Contract. Overrun activity will not contribute to the minimum activity level.
4. Either Union or a customer, or potential customer, may apply to the Ontario Energy Board to fix rates and other charges different from the rates and other charges specified herein if the changed rates and other charges are considered by either party to be necessary, desirable and in the public interest.

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14

5. Transportation fuel ratio does not apply to customers served from dedicated facilities directly connected to third party transmission systems with custody transfer metering at the interconnect.

SUPPLEMENTAL CHARGES:

Rates for supplemental services are provided in Schedule "A".

Notes:

1. All demand charges are paid monthly during the term of the contract for not less than one year unless Union, in its sole discretion, accepts a term of less than one year.

1 **OVERRUN SERVICE:**

2
3 **1. Annual Storage Space**

4
5 Authorized

6
7 Authorized Overrun is provided as Storage/Balancing Service. It is payable on all quantities on any Day in excess
8 of the customer's contracted Maximum Storage Space. Overrun will be authorized by Union at its sole discretion.
9 Storage Space Overrun equal to the customer's firm deliveries from TCPL: less the customer's Firm Daily
10 Contract Demand, all multiplied by the Days of Interruption called during the period of November 1 to March 31,
11 will be automatically authorized until the following July 1.

12
13 Unauthorized

14
15 If in any month, the customer has gas in storage in excess of the contracted Maximum Storage Space, and which
16 has not been authorized by Union or provided for under a short term supplemental storage service, such an event
17 will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate will be \$1.745 per GJ
18 applied to the greatest excess for each occurrence.

19
20 If on any Day the gas storage balance for the account of the customer is less than zero, the Unauthorized Overrun
21 charge will apply for each GJ of gas below a zero inventory level and this amount of gas shall be deemed not to
22 have been withdrawn from storage. The gas shall be deemed to have been sold to the customer at the highest
23 spot price at Dawn in the month of occurrence and the month following occurrence as identified in the Canadian
24 Gas Price Reporter and shall not be less than Union's approved weighted average cost of gas. If the customer
25 has contracted to provide its own deliverability inventory, the zero inventory level shall be deemed to mean twenty
26 percent (20%) of the Annual Firm Storage Space.

27
28 **2. Injection, Withdrawals and Transportation**

29 Authorized

30
31 The following Overrun rates are applied to any quantities transported, injected or withdrawn in excess of 103% of
32 the Contract parameters. Overrun will be authorized by Union at its sole discretion.

33
34 Automatic authorization of Injection Overrun will be given during all Days a customer has been interrupted.

35
36

	Union Providing Fuel	For Customers Providing Their Own Compressor Fuel Firm or Interruptible Service	
	Firm or Interruptible Service	Fuel Ratio	Commodity Charge
Storage Injections	\$0.155/GJ	1.05%	\$0.069/GJ
Storage Withdrawals	\$0.155/GJ	1.05%	\$0.069/GJ
Transportation	0.8719 ¢/m ³	0.584%	0.6905 ¢/m ³

37
38 Unauthorized

39
40 For all quantities on any Day in excess of 103% of the customer's contractual rights, for which authorization has
41 not been received, the customer will be charged 6.5705¢ per m³ or \$1.745 per GJ, as appropriate.
42

1 3. Storage / Balancing Service

2 Authorized

3
4
5 The following Overrun rates are applied to any quantities stored in excess of the Contract parameters. Overrun
6 will be authorized by Union Gas at its sole discretion.
7

	<u>Firm Service Rate/GJ</u>
Space	\$0.937
Injection / Withdrawal Maximum	\$3.000

8
9
10 OTHER SERVICES & CHARGES:

11
12 1. Monthly Charge

13
14 In addition to the rates and charges described previously for each Point of Consumption, a Monthly Charge shall
15 be applied as follows:

Monthly Charge	\$1 800
----------------	---------

16
17
18
19 2. Diversion of Gas

20
21 The availability of the right to divert gas will be based on Union's ability to accommodate the diversion. The price
22 to be charged for the right to divert shall be determined through negotiation.
23

- 24 3. Unless otherwise authorized by Union, customers who are delivering gas to Union under direct purchase
25 arrangements must obligate to deliver at a point(s) specified by Union and must acquire and maintain firm
26 transportation on all upstream pipeline systems. Customers initiating direct purchase arrangements, who
27 previously received Gas Supply service, must also accept, unless otherwise authorized by Union, an assignment
28 from Union of transportation capacity on upstream pipeline systems.
29

30 (D) Delayed Payment

31
32 When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance
33 including previous arrears shall be increased by 1.5%.
34

1 **APPENDIX B**

2 **UNION GAS IN-FRANCHISE COST-BASED BALANCING SERVICES**

3 As can be reviewed on the Union Gas web site at:
4 www.uniongas.com/business/unionline/balancingtypes.asp

5
6 **In-Franchise Transfer (IFT)**

7 An In-Franchise Transfer (IFT) is a transaction that transfers gas from one in-franchise contract
8 that is "long" (over delivered) to an in-franchise contract that is "short" (over consumed).

- 9 • Both the To party and the From party must accept the Authorization Notice before the
10 transaction is executed.
- 11 • Only allowed between customers in the same delivery area (the South is considered as
12 one delivery area).
- 13 • Not applicable to Unbundled contracts

14 **Fees**

- 15 • From a Bundled-T contract to a Bundled-T contract – From party pays \$0.059/GJ
- 16 • From a Bundled-T contract to a T1/T-3 contract* – From party pays \$0.059/GJ
- 17 • From a T1/T-3 contract* to a Bundled-T contract – From party pays \$0.003/GJ
- 18 • From a T1/T-3 contract* to a T1/T-3 contract* – From party pays \$0.003/GJ

19 ** T1/T-3 customers also pay for storage injection/withdrawal*

20

21 **Ex-Franchise Transfer (EFT)**

22 An Ex-Franchise Transfer (EFT) is a transaction that lets a Southern customer transfer a quantity
23 of gas from a Bundled-T contract's BGA or a T1/T-3 contract's storage to a third party who will
24 not consume the gas within Union's franchise area. The location for **this transaction is at Dawn.**

25 **Notes**

- 26 • For T1/T-3 customers - If the Ex-Franchise Transfer results in storage withdrawal
27 overrun for a T1/T-3 contract, the overrun is deemed unauthorized unless approved in
28 advance by Union Gas

29 **Fees**

- 30 • From a Bundled-T contract to a third party – From party pays \$0.115/GJ
- 31 • From a T1/T-3* contract to a third party – From party pays \$0.059/GJ

32 ** T1/T-3 customers also pay for storage withdrawal*

33

1 **DCQ Assignment**

2 A DCQ assignment is a transaction where the obligation (i.e. Daily Contract Quantity at a receipt
3 point) and/or the upstream capacity of a southern Direct Purchase contract is transferred to
4 another in-franchise contract for a specified time frame. Customers cannot assign more than their
5 DCQ at the receipt point.

6 Note

7 Both the To party and the From party must accept the Authorization Notice before the
8 transaction is executed.

- 9 • Only allowed between customers in the same delivery area (the South is considered as
10 one delivery area).
- 11 • Not applicable to Unbundled contracts

12 Fee

13 From party pays \$0.003/GJ
14

15 **Suspension**

16 A suspension is a transaction that lets a Southern Direct Purchase customer, with contracted
17 DCQ at Ontario receipt points, deliver less than the contracted DCQ. The gas does not arrive on
18 Union's system.

19 Note

- 20 • Authorization is not required for unbundled contracts but unbundled Parkway DCQ is
21 subject to a Parkway call-back.
- 22 • Nomination changes required.
- 23 • Western service cannot be suspended

24 Fee - No charge
25

26 **Diversion**

27 A diversion is a transaction that lets a Southern Direct Purchase customer reduce their contracted
28 DCQ. This customer will still deliver the gas to Union's system. However, instead of adding this
29 gas to their BGA or Storage account, it is provided to a third party at the point of receipt. The
30 third party cannot consume the gas within Union's franchise area.

31 Notes

- 32 • Authorization is not required for Unbundled contracts; however Unbundled Parkway
33 DCQ is subject to a Parkway call-back.
- 34 • Diverted quantities cannot be greater than the DCQ on a daily basis for a negotiated
35 period of time
- 36 • Diversion requires a nomination change.

37 Fee

38 From party pays \$0.003/GJ

1 **Incremental Supply**

2 Incremental supply is a transaction that allows a Direct Purchase customer to bring in
3 incremental deliveries at one of Union's points of receipt. Incremental supply is interruptible and
4 non-obligated.

5 Note

- 6 • For T1/T-3 customers -- If the incremental supply results in storage injection overrun for
7 a T1/T-3 contract, the overrun is deemed unauthorized unless approved in advance by
8 Union Gas
- 9 • Available to both Bundled and Unbundled contracts.
- 10 • Transaction must be nominated

11 Fee - No charge*

12 *T1/T-3 customers pay for storage injection

13

14 **Loan**

15 A loan is a transaction that lets a Direct Purchase customer obtain gas from Union for a period of
16 time. The service is subject to availability and the price is negotiated.

17 **Short Term Storage**

18 Storage is a transaction that lets a Direct Purchase customer obtain storage from Union Gas. The
19 service is subject to availability and price is negotiated.

20

21 **Discretionary Gas Supply Service (DGSS)**

22 DGSS is a supplementary supply service that allows Direct Purchase customers to buy a specific
23 quantity of gas from Union that is above and beyond their obligated supply arrangements. The
24 Direct Purchase customer will pay Union's cost of buying the supply plus a gas supply
25 administration charge that is in effect at the time of the purchase. The service is to be used to
26 supplement a customer's gas portfolio.

27 Fee

28 Gas supply administration charge of \$0.066/GJ plus supply cost.

1 **APPENDIX C – T1 OPERATIONAL SCENARIOS**

2
3 **T1 Service Characteristics**
4

- 5 • Delivery to Plant - customized / tailored parameters for each point of delivery to plant
- 6 • Delivery to Union - One contract covers both upstream and delivery to plant
- 7 • Storage - Space, injection / withdrawal rights customized
- 8 • Balancing - Maintain activity within daily tolerances and maintain positive storage
9 balance

10

11 **Power Plant Requirements**

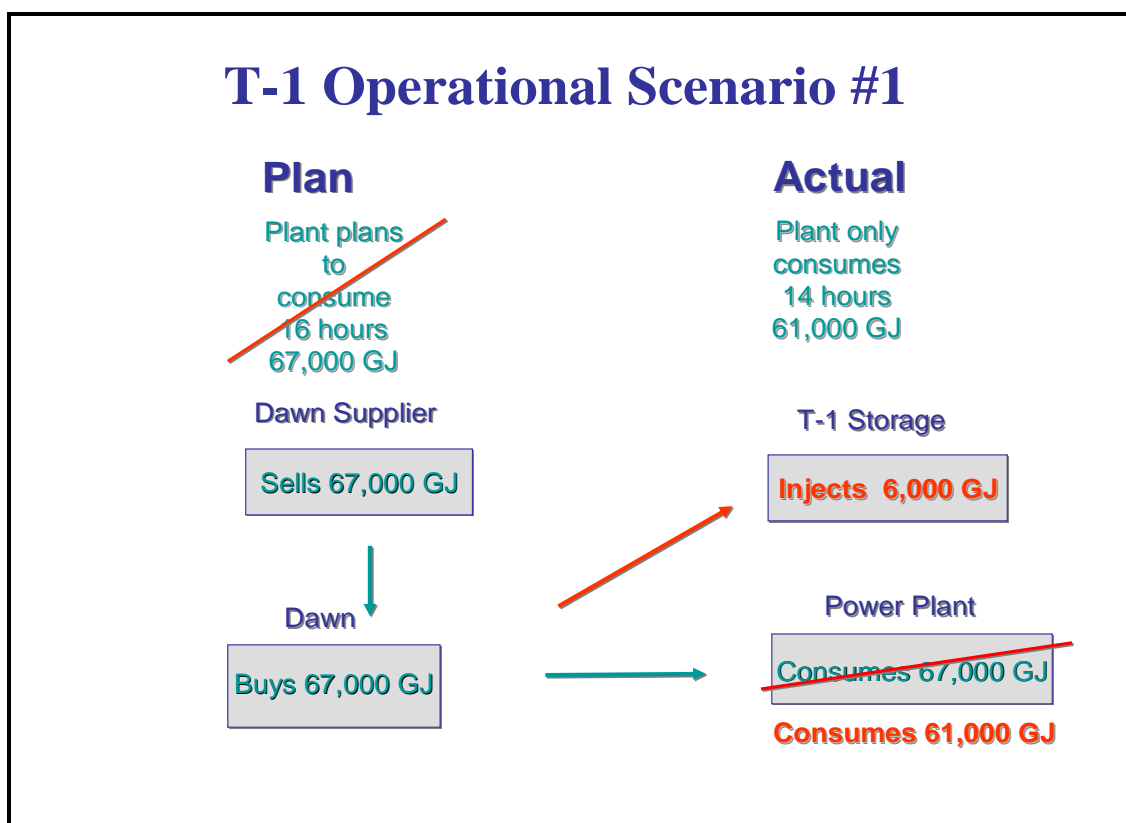
- 12 • A typical 500 MW combined cycle plant consumes approximately 100,000 GJ a day or
13 about 4,000 to 5,000 GJ per hour
- 14 • Based on history and some seasonal assumptions, Union would expect a plant this size to
15 need the following service parameters:
 - 16 • A firm daily transportation demand of up to 100,000 GJ
 - 17 • Annual firm storage space of up to 500,000 GJ
 - 18 • Daily firm injection and withdrawal rate of up to 6,000 GJ
 - 19 • Interruptible injection and withdrawal capability also available
- 20 • Customer provides hourly consumption profile to Union to assist Union in managing the
21 system. There are no financial penalties for operating different than this plan.

22 *With service parameters as proposed, the following scenarios could represent a “typical” day:*
23

1 Power Plant Scenario #1:

- 2 • Plan is to run for 16 hours with expected consumption of about 67,000 GJ
- 3 • Decision to buy the 67,000 GJ at Dawn is made
- 4 • Nominates to Union and their supplier to receive 67,000 GJ at Dawn for the next gas day
- 5 • Next day, plant runs only 14 hours; consumption drops to approx. 61,000 GJ
- 6 • No need to change supply nomination; 67,000 GJ can still be received at Dawn
- 7 • Net impact is that 6,000 GJ's are injected into storage (no nomination required)
- 8 • Option available to sell the 6,000 GJ into the open market before it is received at Dawn

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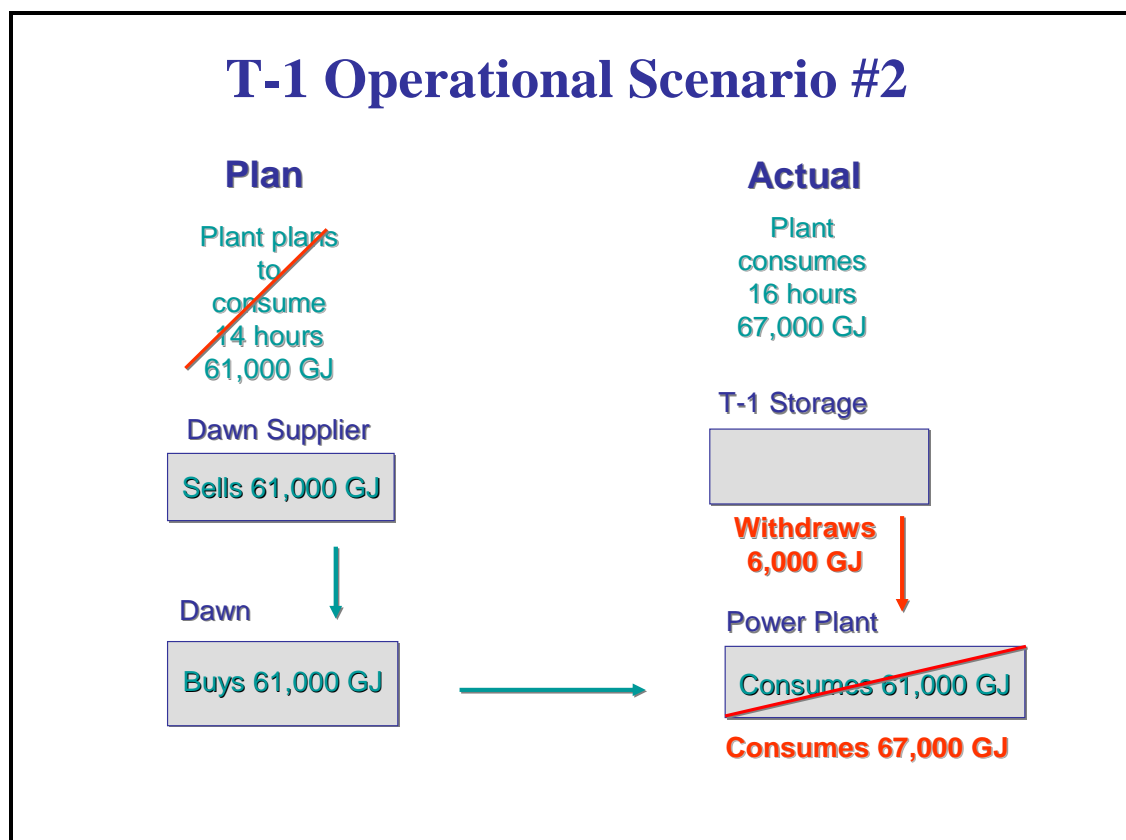
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13

1 Power Plant Scenario #2:

- 2 • Plan is to run for 14 hours with expected consumption of about 61,000 GJ
- 3 • Decision to buy the 61,000 GJ at Dawn is made
- 4 • Nominates to Union and their supplier to deliver 61,000 GJ at Dawn for the next gas day
- 5 • Next day, plant runs for 16 hours; consumption increases to approx. 67,000 GJ
- 6 • No need to change supply nomination; 61,000 GJ can still be received at Dawn
- 7 • Net impact is that 6,000 GJ's are withdrawn from storage; assuming there is at least
- 8 6,000 GJ sitting in the customers storage account (no nomination required)
- 9 • Option available to buy the 6,000 GJ in the open market

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APPENDIX D – RATE U7

STORAGE AND DELIVERY RATES FOR UNBUNDLED CUSTOMERS

(A) Availability

Available to customers in Union's Southern Delivery Zone.

(B) Applicability

To a customer:

- a) whose combined firm and interruptible service minimum annual delivery of natural gas is 5 000 000 m³ or greater;
- b) who enters into an Unbundled Service Contract with Union for the delivery or the storage and delivery of Gas for use at facilities located within Union's gas franchise area;
- c) who has meters with electronic recording at each Point of Consumption;
- d) who nominates injections and withdrawals from storage, deliveries on upstream pipeline systems daily, or Ontario Producers authorized to sell to third parties;
- e) for whom Union has determined delivery and/or storage capacity is available; and
- f) who has site specific energy measuring equipment installed at each Point of Consumption that will be used in determining energy balances.

For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the customer's property will be used, irrespective of the number of meters installed.

(C) Rates

The following rates shall be charged for all volumes contracted or handled as appropriate. The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may also be negotiated, which may be higher or lower than the identified rates.

STORAGE SERVICE

	<u>Demand Charge</u> <u>Rate/GJ/mo</u>	<u>Fuel</u> <u>Rate</u>	<u>Commodity Charge</u> <u>Rate/GJ</u>
i) Standard Storage Service (SSS)			
a) Combined Storage Space & Deliverability Applied to contracted Maximum Storage Space	\$0.022		
b) Injection Commodity		0.631%	\$0.013
c) Withdrawal Commodity		0.631%	\$0.013
ii) Supplemental Service			
a) Incremental Firm Injection Right (5) Applied to the contracted Maximum Incremental Firm Injection Right	\$0.929		
b) Incremental Firm Withdrawal Right (5) Applied to the contracted Maximum Incremental Firm Withdrawal Right	\$0.929		
c) Short Term Storage / Balancing Service - Maximum			\$3.000

Notes:

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1. Demand charges for Annual Services are paid monthly during the term of the Contract, which shall not be less than one year, unless Union, in its sole discretion, accepts a term of less than one year.
2. Daily Firm Injection and Withdrawal Rights shall be pursuant to the Storage Contract.
3. Storage Space, Withdrawal Rights, and Injection Rights are not assignable to any other party without the prior written consent of Union and where necessary, approval from the Ontario Energy Board.
4. Short Term Storage / Balancing Service (less than 2 years) is:
 - i) a combined space and interruptible deliverability service for short-term or off-peak storage in Union's storage facilities, OR
 - ii) short-term incremental firm deliverability, OR
 - iii) a component of an operational balancing service offered.

In negotiating the rate to be charged for service, the matters that are to be considered include:

 - i) The minimum amount of storage service to which a customer is willing to commit,
 - ii) Whether the customer is contracting for firm or interruptible service during Union's peak or non-peak periods,
 - iii) Utilization of facilities,
 - iv) Competition, and
 - v) Term.
5. Union's ability to offer incremental injection and withdrawal rights is subject to annual asset availability.

DELIVERY SERVICE

	<u>Demand Charge</u> <u>Rate/m³/mo</u>	<u>Fuel</u> <u>Ratio</u>	<u>Commodity Charge</u> <u>Rate/ m³</u>
a) Annual Firm Delivery Demand			
Applied to the Firm Daily Contracted Demand			
First 140,870 m ³ per month	16.9379¢		
All over 140,870 m ³ per month	12.2359¢		
b) Firm Delivery Commodity			
Paid on all firm volumes redelivered to the customer's Point(s) of Consumption			
First 2,360,653 m ³ per month		0.584%	0.1336
All over 2,360,653 m ³ per month		0.584%	0.0783
c) Interruptible Delivery Commodity			
Paid on all interruptible volumes redelivered to the customer's Point of Consumption – Maximum		0.584%	2.5658¢

27

Notes:

1. All demand charges are paid monthly during the term of the Contract, which shall not be less than one year unless Union, at its sole discretion, accepts a term of less than one year.
2. In negotiating the rate to be charged for the delivery of gas under interruptible Delivery, the matters that are to be considered include:
 - a) The amount of the Interruptible Delivery for which customer is willing to contract,
 - b) The anticipated load factor for the Interruptible Delivery volumes,
 - c) Interruptible or curtailment provisions, and
 - d) Competition.
3. In each contract year, the customer shall pay for a Minimum Interruptible Delivery Activity level as specified in the Contract. Overrun activity will not contribute to the minimum activity level.

OVERRUN SERVICE

1. Injection and Withdrawal

Authorized

	<u>Fuel Ratio</u>	<u>Commodity Charge Rate/GJ</u>
Injection	1.05%	\$0.044
Withdrawal	1.05%	\$0.044

The Authorized Overrun rate is payable on all quantities on any Day in excess of the customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.

Unauthorized

If at any time in any month, the customer has gas in storage in excess of the contracted Maximum Storage Space or the gas storage balance for the account of the customer is less than zero or the customer has injected or withdrawn volumes from storage which exceeds their contractual rights, and which has not been authorized by Union or provided for under a short term storage/balancing service, such an event will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate during the November 1 to April 15 period will be \$50.00 per GJ. The Unauthorized Overrun rate during the April 16 to October 31 period will be \$1.745 per GJ.

2. Delivery

Authorized

The following Authorized Overrun rates are applied to any volumes transported in excess of 103% of the Contract parameters. Overrun will be authorized by Union at its sole discretion.

	<u>Fuel Ratio</u>	<u>Commodity Charge Rate/ m³</u>
Delivery	0.584%	0.6905¢

Unauthorized

For all volumes on any Day in excess of 103% of the customer's contractual rights, for which authorization has not been received, the customer will be charged a rate of 6.5705¢ per m³.

OTHER SERVICES & CHARGES

1. Monthly Charge

In addition to the rates and charges described previously for each Point of Consumption, a Monthly Charge shall be applied as follows:

Monthly Charge	\$1 800 per month
----------------	-------------------

2. Unless otherwise authorized by Union, customers who are delivering gas to Union under direct purchase arrangements must commit to provide a call at Parkway, throughout the winter period, for a specified number of days. Customers initiating direct purchase arrangements, who previously received Gas Supply service, must also accept, unless otherwise authorized by Union, an assignment from Union of transportation capacity on upstream pipeline systems.

3. Nomination Variances

The rate for unauthorized parking or drafting which results from nomination variances shall be equal to 50% of the "Daily Balancing Fee" rate as described under Article XXII of TransCanada PipeLines Transportation Tariff. During the period September 1 to November 30, and February 1 to April 30, no Daily Balancing Fee is payable on the portion of the nomination variance which is less than the greater of 4% of the nominated amount and 150 GJ's. For the remainder of the year, no Daily Balancing Fee is payable on the portion of the nomination variance which is less than the greater of 8% of the nominated amount and 302 GJ's.

(D) Delayed Payment

When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance including previous arrears shall be increased by 1.5%.

1 **APPENDIX E**2 **SUMMARY COMPARISON OF T1 TO U7**

Attribute	T1	U7
Flexibility	<ul style="list-style-type: none"> ▪ Service can access Dawn market ▪ Customer tailors the service parameters to meet plant needs by contracting discreetly for storage space, deliverability and transportation ▪ One contract can serve multiple plant locations in the Union South franchise ▪ One supply of gas to Union and one common storage account can serve multiple plant locations ▪ Operational efficiencies may be realized through economies of scale. 	<ul style="list-style-type: none"> ▪ Service can access Dawn market ▪ Customer tailors the service parameters to meet plant needs by contracting discreetly for storage space, storage deliverability and transportation ▪ One contract can serve multiple plant locations in the Union South franchise ▪ One supply of gas to Union and one common storage account can serve multiple plant locations ▪ Operational efficiencies may be realized through economies of scale.
Nomination Windows	<ul style="list-style-type: none"> ▪ No requirement to nominate consumption at the plant. No-notice service to the plant allows customer to consume up to his firm daily transportation demand at any time during the gas day with no notice (or nomination) to Union Gas. ▪ No requirement to nominate injections/withdrawals into/out of storage. ▪ Customer nominates upstream supplies on North American Energy Standards Board (NAESB) nomination windows. These are the same nomination windows provided by the upstream pipelines that connect to the Ontario gas system. Most customers submit a standing nomination on a monthly basis with no requirement to nominate daily. 	<ul style="list-style-type: none"> ▪ Customers nominate supplies to Union, consumption at plant locations and injection/withdrawals from storage on NAESB nomination windows. These are the same nomination windows provided by the upstream pipelines that connect to the Ontario gas system.

Attribute	T1	U7
Balancing	<ul style="list-style-type: none"> ▪ Balancing for this service is done on a daily basis. ▪ End of day reconciliation results in either a deemed injection into storage or withdrawal from storage depending on whether plant consumption was greater or less than daily delivery of gas to Union. ▪ Provides maximum flexibility since no notice is required to change consumption pattern or storage injections/withdrawals. 	<ul style="list-style-type: none"> ▪ Balancing for this service is done on a daily basis. ▪ Daily imbalance is the variance, on any day, between the quantity of gas nominated to the plant for consumption and the actual quantity consumed on that day. ▪ Daily imbalances are communicated to customer and must be first gas cleared on next gas day.
Deliverability	<ul style="list-style-type: none"> ▪ Currently have access to cost-based standard storage deliverability equal to 1.2% of their total contracted storage space. ▪ Customers can contract for higher deliverability at market based rates. 	<ul style="list-style-type: none"> ▪ Currently have access to cost-based standard storage deliverability equal to 1.2% of their total contracted storage space. ▪ Customers can contract for higher deliverability at market based rates.
Discrete Storage and Distribution Services	<ul style="list-style-type: none"> ▪ Not required to contract for Union supplied storage services as a condition of receiving distribution service. ▪ Customer can elect to take no storage at all or can elect to be served by a third party storage provider ▪ Must contract for T1 service to access cost-based storage. ▪ A customer who is not a distribution service customer may contract with Union for storage services. These services would be classified as ex-franchise services and would be priced and administered under the C-1 rate schedule. 	<ul style="list-style-type: none"> ▪ Not required to contract for Union supplied storage services as a condition of receiving distribution service. ▪ Customer can elect to take no storage at all or can elect to be served by a third party storage provider ▪ Must contract for U7 service to access cost-based storage. ▪ A customer who is not a distribution service customer may contract with Union for storage services. These services would be classified as ex-franchise services and would be priced and administered under the C-1 rate schedule.
Unbundled Services	<ul style="list-style-type: none"> ▪ Reflects a degree of unbundling in respect to distinct contract parameters for upstream capacity, storage space and deliverability, and redelivery to the customer plant(s). ▪ Service deems injections and withdrawals into storage through end-of-day allocation process. ▪ Nomination to withdraw from storage for 	<ul style="list-style-type: none"> ▪ Service offers the separate offerings and pricing of discrete elements of services including storage space and deliverability and redelivery to customer plant(s). ▪ Customer fully manages contracted storage space and deliverability. ▪ Customer nominates daily deliveries, consumption, injections into and

Attribute	T1	U7
	<p>sale at Dawn requires approval through the Authorization process.</p> <ul style="list-style-type: none"> ▪ Firm storage and withdrawal rights are for the exclusive purpose of meeting the requirements of the specific locations included in each contract. 	<p>withdrawals from storage.</p> <ul style="list-style-type: none"> ▪ Customer has firm ability, up to his firm contractual parameters, to withdraw gas from storage in order to capture market opportunities at Dawn.
Inter-franchise movement and redirection of gas	<ul style="list-style-type: none"> ▪ Access to cost-based balancing services to manage over/under consumption on the Union system ▪ Access to market-based transactional services to facilitate sale or movement of gas upstream and downstream of Dawn. 	<ul style="list-style-type: none"> ▪ Full flexibility within the U7 service to manage over/under consumption on the Union system ▪ Access to market-based transactional services to facilitate sale or movement of gas upstream and downstream of Dawn.
Ability to transfer the title of gas in storage	<ul style="list-style-type: none"> ▪ A customer with a T1 service and multiple redelivery points has the ability to use one storage account to balance multiple plant locations within the Union Gas franchise. This essentially provides the ability to move storage gas from one account to another at no cost. ▪ The market place for title transfers in Ontario is above ground at Dawn. ▪ Proactive customers transfer title at a Union interconnect rather than wait until the gas has been injected into storage (if not required for consumption). 	<ul style="list-style-type: none"> ▪ The unbundled customer has the opportunity to pro-actively balance their requirements on a daily basis, either by suspending deliveries or bringing in incremental supplies. The use of these services (suspensions and incremental supplies) is free of charge. ▪ Union will facilitate title transfers between unbundled customers in a manner which continues to respect the contractual storage injection and withdrawal parameters.

1 **APPENDIX F - RATE 20**

2 **MEDIUM VOLUME FIRM SERVICE**

3 ELIGIBILITY

4
5 Any customer in Union's Fort Frances, Western, Northern or Eastern Zones who is an end-user or who is authorized to serve an
6 end-user of gas through one or more Company-owned meters at one location, and whose total maximum daily requirements for
7 firm or combined firm and interruptible service is 14,000 m³ or more.

8
9 SERVICES AVAILABLE

10
11 The following services are available under this rate schedule:

12
13 (a) Sales Service

14
15 For continuous supply of natural gas by Union and associated transportation and storage services necessary to ensure
16 deliverability in accordance with the customer's needs. For this service, the Monthly, Delivery and Gas Supply
17 Charges shall apply.

18
19 (b) Transportation Service

20
21 For continuous delivery on Union's distribution system from the Point of Receipt on TCPL's system to the Point of
22 Consumption on the customer's premises of natural gas owned by the customer. The customer is responsible for
23 obtaining the requisite regulatory approvals for the supply and transmission of such gas to Union's distribution system.
24 For this service, the Monthly, Delivery, Transportation Account and Diversion Transaction Charges shall apply. Unless
25 otherwise authorized by Union, customers who initiate a movement to Transportation Service from a Sales Service or
26 Bundled Transportation Service must accept an assignment from Union of transportation capacity on upstream pipeline
27 systems. Customers may reduce their assignment of transportation capacity in compliance with Union's Turnback
28 Policy.

29
30 (c) Bundled Transportation Service

31
32 For continuous delivery by Union of gas owned by the customer and for the associated transportation and storage
33 services necessary to ensure deliverability in accordance with the customer's needs. For this service the Monthly,
34 Delivery, Gas Supply Demand and Commodity Transportation Charges shall apply.

35
36 (d) Storage Service

37
38 For load balancing purposes for customers using Transportation Service on this rate schedule. If at the sole discretion
39 of Union, adequate supplies exist, bundled and unbundled storage and delivery/redelivery services will be provided.

40
41 The charge for Bundled Storage Service will consist of the charges for Transportation Service plus the charges for
42 Bundled Storage Service.

43
44 The charge for Unbundled Storage Service will consist of the charges for Transportation Service plus the charges for
45 Unbundled Storage Service which must include charges for delivery/redelivery service to/from storage.

46
47 NOTE: Union has a short-term intermittent gas supply service under Rate 30 which customers may avail themselves
48 of, if they qualify for use of the service.

1 MONTHLY RATES AND CHARGES

2

APPLICABLE TO ALL SERVICES – ALL ZONES (1)

MONTHLY CHARGE \$780.00

DELIVERY CHARGES: (cents per month per m³)

Monthly Demand Charge for first 70,000 m³ of Contracted Daily Demand 18.9962

Monthly Demand Charge for all units over 70,000 m³ of Contracted Daily Demand 11.4267

Commodity Charge for first 852,000 m³ of gas volumes delivered 0.2647

Commodity Charge for all units over 852,000 m³ of gas volumes delivered 0.2057

NOTE

(1) Either the utility or a customer, or potential customer, may apply to the Ontario Energy Board to fix rates, charges and terms and conditions applicable thereto, different from the rates, charges and terms and conditions specified herein if changed rates, charges and terms and conditions are considered by either party to be necessary, desirable and in the public interest.

3

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6

ADDITIONAL CHARGES FOR SALES SERVICE

Gas Supply Charge

The gas supply charge is comprised of charges for transportation and for commodity and fuel.
The applicable rates are provided in Schedule "A".

Commodity Transportation

Charge 1 applies for all gas volumes delivered in the billing month up to the volume represented by the Contract Demand multiplied by the number of days in the billing month multiplied by 0.4.

7

8

9

HEAT CONTENT ADJUSTMENT

10 The gas supply commodity charges hereunder will be adjusted upwards or downwards as described below if the average total
11 heating value of the gas per cubic metre (m³) determined in accordance with Union's Terms and Conditions in any month falls
12 above or below 37.89 MJ per m³, respectively.

13

14 The adjustment shall be determined by multiplying the amount otherwise payable by a fraction, where the numerator is the
15 monthly weighted average total heating value per cubic meter and the denominator 37.89.

1 COMMISSIONING AND DECOMMISSIONING RATE
2

3 The contract may provide that the Monthly Demand Charges specified above shall not apply on all or part of the daily contracted
4 demand used by the customer either during the testing, commissioning and phasing in of gas using equipment or, alternatively,
5 in the decommissioning and phasing out of gas using equipment being displaced by other gas using equipment, for a period not
6 to exceed one year ("the transition period"). To be eligible the new or displaced gas using equipment must be separately
7 meterable. In such event, the contract will provide the following rates that such volume during the transitional period will be
8 charged.
9

Zone Rate Schedule No.	<u>Fort Frances</u> 220	<u>Western</u> 120	<u>Northern</u> 320	<u>Eastern</u> 620
<u>MONTHLY CHARGE</u>	\$780.00	\$780.00	\$780.00	\$780.00
<u>DELIVERY CHARGES</u>	<u>cents per m³</u>	<u>cents per m³</u>	<u>cents per m³</u>	<u>cents per m³</u>
Commodity Charge for each unit of gas volumes delivered	1.5138	1.5138	1.5138	1.5138

GAS SUPPLY CHARGES

The gas supply charge is comprised of charges for transportation and for commodity and fuel.
The applicable rates are provided in Schedule "A".

ADDITIONAL CHARGES FOR TRANSPORTATION AND STORAGE SERVICES – ALL ZONES

MONTHLY TRANSPORTATION ACCOUNT CHARGE

For customers that currently have installed or will require installing telemetering equipment: \$220.00

BUNDLED (T-SERVICE) STORAGE SERVICE CHARGES

Monthly Demand Charge for each unit of Contracted Daily Storage Withdrawal Entitlement (\$ per GJ per Month) \$10.187

Commodity Charge for each unit of gas withdrawn from storage (\$ per GJ) \$0.236

Authorized Overrun Commodity Charge on each additional unit of gas Union authorizes for withdrawal from storage (\$ per GJ) \$0.571

The Authorized Overrun Commodity Charge is payable on all quantities on any Day in excess of the customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.

UNBUNDLED STORAGE SERVICE CHARGES

Storage Space Charge:

Applied to Contracted Maximum Storage Balance (\$ per GJ per Month) \$0.031

Fuel Ratio:

Applied to all gas injected and withdrawn from storage (%) 0.631%

Commodity Charge:

Applied to all gas injected and withdrawn from storage (\$ per GJ) \$0.013

UNBUNDLED STORAGE SERVICE AUTHORIZED OVERRUN CHARGES:

Fuel Ratio:

Applied to all gas injected and withdrawn from storage (%) 1.05%

Commodity Charge:

Applied to all gas injected and withdrawn from storage (\$ per GJ) \$0.065

The Authorized Overrun Commodity Charge is payable on all quantities on any Day in excess of the customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.

1 UNBUNDLED STORAGE SERVICE UNAUTHORIZED OVERRUN CHARGES

2
3 If in any month, the customer has gas in storage in excess of the contracted Maximum Storage Space or the gas storage
4 balance for the account of the customer is less than zero or the customer has injected or withdrawn volumes from storage which
5 exceeds their contractual rights, and which has not been authorized by Union or provided for under a short term
6 storage/balancing service, such an event will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate
7 during the November 1 to April 15 period will be \$50.00 per GJ. The Unauthorized Overrun rate during the April 16 to October
8 31 period will be \$2.823 per GJ.

9
10 UNBUNDLED SERVICE NOMINATION VARIANCES

11
12 The rate for unauthorized parking or drafting which results from nomination variances shall be equal to 50% of the "Daily
13 Balancing Fee" rate as described under Article XXII of TransCanada PipeLines Transportation Tariff. No Daily Balancing Fee is
14 payable on the portion of the nomination variance which is less than the greater of 4% of the nominated amount and 150 GJ.

15

Zone Rate Schedule No.	<u>Fort Frances</u> 220	<u>Western</u> 120	<u>Northern</u> 320	<u>Eastern</u> 620
<u>Delivery service to Storage Facilities (1)</u>				
Demand Charge (\$/GJ/month)	N/A	N/A	\$9.351	\$0.935
Commodity (\$/GJ)	N/A	N/A	\$0.062	\$0.017
<u>Redelivery Service from Storage Facilities</u>				
Demand Charge (\$/GJ/month)	\$3.763	\$3.763	\$3.763	\$10.313
Commodity (\$/GJ)	\$0.046	\$0.046	\$0.046	\$0.076

Notes:

1. Delivery Service to Storage Facilities is not available to Northern Zone customers in the Sault Ste. Marie Delivery Area (SSMDA).
2. Daily Firm injection and Withdrawal Rights shall be pursuant to the storage contract.
3. Storage Space, Withdrawal Rights and Injection Rights are not assignable to any other party without the prior written consent of Union and where necessary, approval from the Ontario Energy Board.

DIVERSION TRANSACTION CHARGE

Charge to a customer Receiving Delivery of diverted gas each time such customer requests a diversion and Union provides the service: \$10.00

16
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18 **THE BILL**

19
20 The bill will equal the sum of the charges for all services selected plus the rates multiplied by the applicable gas quantities
21 delivered or withdrawn for each service chosen plus all applicable taxes. If the customer transports its own gas, the Gas Supply
22 Charge under Sales Service will not apply. If the customer selects Union's Sales Service which includes the Gas Supply
23 Charge, no additional charges for Transportation and Storage Services will apply.

24
25
26 **MINIMUM BILL**

27
28 The minimum bill shall be the Monthly Charge, the Transportation Account Charge and the Demand Charges, as applicable.

1 DELAYED PAYMENT

2 When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance including
3 previous arrears shall be increased by 1.5%.

4
5
6 SERVICE AGREEMENT

7
8 All customers must enter into a Service Agreement with Union before receiving service under this rate schedule.
9

10
11 TERMS AND CONDITIONS OF SERVICE

- 12
13 1. Service shall be for a minimum term of one year.
14
15 2. If multiple end-users are receiving service from a customer under this rate, for billing purposes, the Monthly Charge, the
16 Delivery Charge, the Transportation Account Charge and any other charge that is specific to the location of each end-
17 user shall be used to develop a monthly bill for each end-user at each location. Upon request, possibly for a fee, Union
18 will combine the individual bills on a single invoice or statement for administrative convenience. However, Union will not
19 combine the quantities or demands of several end-use locations so that eligibility to a different rate class will result.
20 Further, Union will not combine the billing data of individual end-users to generate a single bill which is less than the sum
21 of the bills of the individual end-users involved at each location.
22
23 3. Customers must enter into a Service Agreement with Union prior to the commencement of service.
24
25 4. For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the
26 customer's contiguous property will be used, irrespective of the number of meters installed.
27
28 5. The identified rates (excluding gas supply charges, if applicable) represent maximum prices for service. These rates may
29 change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

1 **APPENDIX G - RATE 25**

2 **LARGE VOLUME INTERRUPTIBLE SERVICE**

3
4 **ELIGIBILITY**

5
6 Any customer in Union's Fort Frances, Western, Northern or Eastern Zones who is an end-user or who is authorized to serve an
7 end-user of gas through one or more Company-owned meters at one location, and whose total maximum daily interruptible
8 requirement is 3,000 m³ or more or the interruptible portion of a maximum daily requirement for combined firm and interruptible
9 service is 14,000 m³ or more and whose operations, in the judgement of Union, can readily accept interruption and restoration of
10 gas service.

11
12
13 **SERVICES AVAILABLE**

14
15 The following services are available under this rate schedule:

16
17 (a) **Sales Service**

18
19 For interruptible supply of natural gas by Union and associated transportation services necessary to ensure its delivery
20 in accordance with customer's needs. For this service, the Monthly, Delivery and Gas Supply Charges shall apply.

21
22 (b) **Transportation Service**

23
24 For delivery of natural gas owned by the customer on Union's distribution system from the Point of Receipt from
25 TCPL's system to the Point of Consumption on the customer's or end-user's premises, providing that, in the judgement
26 of Union, acting reasonably, the customer-owned gas does not displace service from Union under a Rate 20 or Rate
27 100 contract specific to that location. The customer is responsible for obtaining the requisite regulatory approvals for
28 the supply and transmission of such gas to Union's distribution system. For this service, the Monthly, Delivery,
29 Transportation Account and Diversion Transaction Charges shall apply.

30
31 NOTE: Union has a short-term intermittent gas supply service under Rate 30 which customers may avail themselves
32 of, if they qualify for use of the service.

33
34
35 **MONTHLY RATES AND CHARGES**

36 **APPLICABLE TO ALL SERVICES – ALL ZONES (1)**

MONTHLY CHARGE \$190.00

DELIVERY CHARGES cents per m³

A Delivery Price for all volumes delivered to the customer to be negotiated between
Union and the customer and the average price during the period in which these
rates remain in effect shall not exceed: 2.8255

NOTE

(1) Either the utility or a customer, or potential customer, may apply to the Ontario Energy Board to fix rates, charges and terms
and conditions applicable thereto, different from the rates, charges and terms and conditions specified herein if changed rates,
charges and terms and conditions are considered by either party to be necessary, desirable and in the public interest.

37

ADDITIONAL CHARGES FOR SALES SERVICE

Gas Supply Charge

As per applicable rate provided in
Schedule "A".

Interruptible Service Applicable all year at a price agreed upon between Union and the customer and the average price during the period in which these rates remain in effect.

HEAT CONTENT ADJUSTMENT

The gas supply commodity charges hereunder will be adjusted upwards or downwards as described below if the average total heating value of the gas per cubic metre (m³) determined in accordance with Union's Terms and Conditions in any month falls above or below 37.89 MJ per m³, respectively.

The adjustment shall be determined by multiplying the amount otherwise payable by a fraction, where the numerator is the monthly weighted average total heating value per cubic meter and the denominator 37.89.

ADDITIONAL CHARGES FOR TRANSPORTATION – ALL ZONES

MONTHLY TRANSPORTATION ACCOUNT CHARGE: For customers that currently have installed or will require installing telemetering equipment. \$220.00

THE BILL

The bill will equal the sum of the monthly charges for all services selected plus the rates multiplied by the applicable gas volumes delivered or withdrawn for each service chosen plus all applicable taxes. If the customer transports its own gas, the Gas Supply Charge under Sales Service will not apply. If the customer selects Union's Sales Service which includes the Gas Supply Charge, no additional charges for Transportation will apply.

MINIMUM BILL

The minimum bill shall be the Monthly Charge and the Transportation Account Charge, if applicable.

DELAYED PAYMENT

When payment of the monthly bill has not been made in full, 16 days after the bill has been issued, the unpaid balance including previous arrears shall be increased by 1.5%.

SERVICE AGREEMENT

All customers must enter into a Service Agreement with Union before receiving service under this rate schedule.

1 TERMS AND CONDITIONS OF SERVICE
2

- 3 1. Service shall be for a minimum term of one year.
4
5 2. If multiple end-users are receiving service from a customer under this rate, for billing purposes, the Monthly Charge, the
6 Delivery Charge, the Transportation Account Charge and any other charge that is specific to the location of each end-
7 user shall be used to develop a monthly bill for each end-user at each location. Upon request, Union will combine the
8 individual bills on a single invoice or statement for administrative convenience. However, Union will not combine the
9 volumes or demands of several end-use locations so that eligibility to a different rate class will result. Further, Union will
10 not combine the monthly billing data of individual end-users to generate a single bill which is less than the sum of the
11 monthly bills of the individual end-users involved at each location.
12
13 3 Customers must enter into a Service Agreement with Union prior to the commencement of service.
14
15 4. For the purposes of qualifying for a rate class, the total volumes of gas consumed or expected to be consumed on the
16 customer's contiguous property will be used, irrespective of the number of meters installed.
17
18 5. The identified rates (excluding gas supply charges, if applicable) represent maximum prices for service. These rates
19 may change periodically. Multi-year prices may also be negotiated, which may be higher

1 **APPENDIX H - RATE 100**

2 **LARGE VOLUME HIGH LOAD FACTOR FIRM SERVICE**

3
4 **ELIGIBILITY**

5
6 Any Customer in Union's Fort Frances, Western, Northern or Eastern Zones who is an end-user or who is authorized to serve an
7 end-user of gas through one or more Company-owned meters at one location, and whose maximum daily requirement for firm
8 service is 100,000 m³ or more, and whose annual requirement for firm service is equal to or greater than its maximum daily
9 requirement multiplied by 256.

10
11 **SERVICES AVAILABLE**

12
13 The following services are available under this rate schedule:

14
15 (a) **Sales Service**

16
17 For continuous supply of natural gas by Union and associated transportation and storage services necessary to ensure
18 deliverability in accordance with the Customer's needs. For this service, the Monthly, Delivery and Gas Supply
19 Charges shall apply.

20
21 (b) **Transportation Service**

22
23 For continuous delivery on Union's distribution system from the Point of Receipt on TCPL's system to the Point of
24 Consumption on the Customer's premises of natural gas owned by the Customer. The customer is responsible for
25 obtaining the requisite regulatory approvals for the supply and transmission of such gas to Union's distribution system.
26 For this service, the Monthly, Delivery, Transportation Account and Diversion Transaction Charges shall apply. Unless
27 otherwise authorized by Union, customers who initiate a movement to Transportation Service from a Sales Service or
28 Bundled Transportation Service must accept an assignment from Union of transportation capacity on upstream pipeline
29 systems. Customers may reduce their assignment of transportation capacity in compliance with Union's Turnback
30 Policy.

31
32 (c) **Bundled Transportation Service**

33
34 For continuous delivery by Union of gas owned by the Customer and for the associated transportation and storage
35 services necessary to ensure deliverability in accordance with the Customer's needs. For this service the Monthly,
36 Delivery, Gas Supply Demand and Commodity Transportation Charges shall apply.

37
38 (d) **Storage Service**

39
40 For load balancing purposes for Customers using Transportation Service on this rate schedule. If at the sole discretion
41 of Union, adequate supplies exist, bundled and unbundled storage and delivery/redelivery services will be provided.

42
43 The charge for Bundled Storage Service will consist of the charges for Transportation Service plus the charges for
44 Bundled Storage Service.

45
46 The charge for Unbundled Storage Service will consist of the charges for Transportation Service plus the charges for
47 Unbundled Storage Service which must include charges for delivery/redelivery service to/from storage.

48
49 **NOTE:** Union has a short-term intermittent gas supply service under Rate 30 which customers may avail themselves
50 of, if they qualify for use of the service.

1 MONTHLY RATES AND CHARGES
2

APPLICABLE TO ALL SERVICES – ALL ZONES (1)

<u>MONTHLY CHARGE</u>	\$780.00
<u>DELIVERY CHARGES</u> (cents per Month per m ³ of Daily Contract Demand) Monthly Demand Charge for each unit of Contracted Daily Demand:	11.2304
COMMODITY CHARGE for each unit of gas volumes delivered (cents per m ³)	0.1983

NOTE:

(1) Either the utility or a customer, or potential customer, may apply to the Ontario Energy Board to fix rates, charges and terms and conditions applicable thereto, different from the rates, charges and terms and conditions specified herein if changed rates, charges and terms and conditions are considered by either party to be necessary, desirable and in the public interest.

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ADDITIONAL CHARGES FOR SALES SERVICE

Gas Supply Charges

The gas supply charge is comprised of charges for transportation and for commodity and fuel. The applicable rates are provided in Schedule "A".

Commodity Transportation

Charge 1 applies for all gas volumes delivered in the billing month up to the volume represented by the Contract Demand multiplied by the number of days in the billing month multiplied by 0.3.

Charge 2 applies for all additional gas volumes delivered in the billing month.

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HEAT CONTENT ADJUSTMENT

The gas supply commodity charges hereunder will be adjusted upwards or downwards as described below if the average total heating value of the gas per cubic metre (m³) determined in accordance with Union's Terms and Conditions in any month falls above or below 37.89 MJ per m³, respectively.

The adjustment shall be determined by multiplying the amount otherwise payable by a fraction, where the numerator is the monthly weighted average total heating value per cubic meter and the denominator 37.89.

1 COMMISSIONING AND DECOMMISSIONING RATE
2

3 The contract may provide that the Monthly Demand Charges specified above shall not apply on all or part of the daily contracted
4 demand used by the customer either during the testing, commissioning and phasing in of gas using equipment or, alternatively,
5 in the decommissioning and phasing out of gas using equipment being displaced by other gas using equipment, for a period not
6 to exceed one year ("the transitional period"). To be eligible the new or displaced gas using equipment must be separately
7 meterable. In such event, the contract will provide the following rates that such volume during the transitional period will be
8 charged.
9

Zone	<u>Fort Frances</u>	<u>Western</u>	<u>Northern</u>	<u>Eastern</u>
Rate Schedule No.	2100	1100	3100	6100
<u>MONTHLY CHARGE</u>	\$780.00	\$780.00	\$780.00	\$780.00
<u>DELIVERY CHARGES</u>				
Commodity Charge for each unit of gas volumes delivered	<u>cents per m³</u> 0.7258	<u>cents per m³</u> 0.7258	<u>cents per m³</u> 0.7258	<u>cents per m³</u> 0.7258
<u>GAS SUPPLY CHARGES</u>				

The gas supply charge is comprised of charges for transportation and for commodity and fuel. The applicable rates are provided in Schedule "A".

ADDITIONAL CHARGES FOR TRANSPORTATION AND STORAGE SERVICES – ALL ZONES

<u>MONTHLY TRANSPORTATION ACCOUNT CHARGE</u>	
For Customers that currently have installed or will require installing telemetering equipment	\$220.00
<u>BUNDLED (T-SERVICE) STORAGE SERVICE CHARGES</u>	
Monthly Demand Charge for each unit of Contracted Daily Storage Withdrawal Entitlement (\$ per GJ per Month)	\$10.187
Commodity Charge for each unit of gas withdrawn from storage (\$ per GJ)	\$0.236
Authorized Overrun Commodity Charge on each additional unit of gas Union authorizes for withdrawal from storage (\$ per GJ)	\$0.571
The Authorized Overrun Commodity Charge is payable on all quantities on any Day in excess of the Customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.	
<u>UNBUNDLED STORAGE SERVICE CHARGES</u>	
Storage Space Charge:	
Applied to Contracted Maximum Storage Balance (\$ per GJ per Month)	\$0.031
Fuel Ratio:	
Applied to all gas injected and withdrawn from storage (%)	0.631%
Commodity Charge:	
Applied to all gas injected and withdrawn from storage (\$ per GJ)	\$0.013
<u>UNBUNDLED STORAGE SERVICE AUTHORIZED OVERRUN CHARGES</u>	
Fuel Ratio:	
Applied to all gas injected and withdrawn from storage (%)	1.05%
Commodity Charge:	
Applied to all gas injected and withdrawn from storage (\$ per GJ)	\$0.065

The Authorized Overrun Commodity Charge is payable on all quantities on any Day in excess of the Customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.

UNBUNDLED STORAGE SERVICE UNAUTHORIZED OVERRUN CHARGES

If in any month, the Customer has gas in storage in excess of the contracted Maximum Storage Space or the gas storage balance for the account of the customer is less than zero or the customer has injected or withdrawn volumes from storage which exceeds their contractual rights, and which has not been authorized by Union or provided for under a short term storage/balancing service, such an event will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate during the November 1 to April 15 period will be \$50.00 per GJ. The Unauthorized Overrun rate during the April 16 to October 31 period will be \$2.823 per GJ.

UNBUNDLED SERVICE NOMINATION VARIANCES

The rate for unauthorized parking or drafting which results from nomination variances shall be equal to 50% of the "Daily Balancing Fee" rate as described under Article XXII of TransCanada PipeLines Transportation Tariff. No Daily Balancing Fee is payable on the portion of the nomination variance which is less than the greater of 4% of the nominated amount and 150 GJ.

Zone Rate Schedule No.	<u>Fort Frances</u> 2100	<u>Western</u> 1100	<u>Northern</u> 3100	<u>Eastern</u> 6100
<u>Delivery service to Storage Facilities (1)</u>				
Demand Charge (\$/GJ/month)	N/A	N/A	\$9.351	\$0.935
Commodity (\$/GJ)	N/A	N/A	\$0.062	\$0.017
<u>Redelivery Service from Storage Facilities</u>				
Demand Charge (\$/GJ/month)	\$3.763	\$3.763	\$3.763	\$10.313
Commodity (\$/GJ)	\$0.046	\$0.046	\$0.046	\$0.076

Notes:

1. Delivery Service to Storage Facilities is not available to Northern Zone Customers in the Sault Ste. Marie Delivery Area (SSMDA).
2. Daily Firm Injection and Withdrawal Rights shall be pursuant to the storage contract.
3. Storage Space, Withdrawal Rights and Injection Rights are not assignable to any other party without the prior written consent of Union and where necessary, approval from the Ontario Energy Board.

DIVERSION TRANSACTION CHARGE

Charge to a Customer Receiving Delivery of diverted gas each time such customer requests a diversion and Union provides the service: \$10.00

THE BILL

The bill will equal the sum of the charges for all services selected plus the rates multiplied by the applicable gas quantities delivered or withdrawn for each service chosen plus all applicable taxes. If the Customer transports its own gas, the Gas Supply Charge under Sales Service will not apply. If the Customer selects Union's Sales Service which includes the Gas Supply Charge, no additional charges for Transportation and Storage Services will apply.

MINIMUM BILL

The minimum bill shall be the Monthly Charge, the Transportation Account Charge and the Demand Charges, as applicable.

1 DELAYED PAYMENT

2 When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance including
3 previous arrears shall be increased by 1.5%.

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5
6 SERVICE AGREEMENT

7
8 All Customers must enter into a Service Agreement with Union before receiving service under this rate schedule.
9

10
11 TERMS AND CONDITIONS OF SERVICE

- 12
13 1. Service shall be for a minimum term of one year.
14
15 2. If multiple end-users are receiving service from a Customer under this rate, for billing purposes, the Monthly Charge, the
16 Delivery Charge, the Transportation Account Charge and any other charge that is specific to the location of each end-
17 user shall be used to develop a monthly bill for each end-user at each location. Upon request, possibly for a fee, Union
18 will combine the individual bills on a single invoice or statement for administrative convenience. However, Union will not
19 combine the quantities or demands of several end-use locations so that eligibility to a different rate class will result.
20 Further, Union will not combine the billing data of individual end-users to generate a single bill which is less than the sum
21 of the bills of the individual end-users involved at each location.
22
23 3 Customers must enter into a Service Agreement with Union prior to the commencement of service.
24
25 4. For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the
26 customer's contiguous property will be used, irrespective of the number of meters installed.
27
28 5. The identified rates (excluding gas supply charges, if applicable) represent maximum prices for service. These rates may
29 change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

APPENDIX I – PROPOSED T1 RATE

STORAGE AND TRANSPORTATION RATES FOR CONTRACT CARRIAGE CUSTOMERS

(A) Availability

Available to customers in Union's Southern Delivery Zone.

(B) Applicability

To a customer

- a) whose combined firm and interruptible service minimum annual transportation of natural gas is 5 000 000 m³ or greater; and
- b) who enters into a Carriage Service Contract with Union for the transportation or the storage and transportation of Gas for use at facilities located within Union's gas franchise area; and
- c) who has meters with electronic recording at each Point of Consumption; and
- d) who has site specific energy measuring equipment installed at each Point of Consumption that will be used in determining energy balances; and
- e) for whom Union has determined transportation and/or storage capacity is available.

For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the customer's contiguous property will be used, irrespective of the number of meters installed.

(C) Rates

The following rates shall be charged for all quantities contracted or handled as appropriate. The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

STORAGE SERVICE:

	Demand Charge Rate/GJ/mo	Commodity Charge Rate/GJ	For Customers Providing Their Own Compressor Fuel	
			Fuel Ratio	Commodity Charge Rate/GJ
a) Annual Firm Storage Space Applied to contracted Maximum Annual Storage Space	\$0.010			
b) Annual Firm Injection/Withdrawal Right: Applied to the contracted Maximum Annual Firm Injection/Withdrawal Right Union provides deliverability Inventory	\$1.966			
Customer provides deliverability Inventory (4)	\$1.023			
c) Incremental Firm Injection Right: Applied to the contracted Maximum Incremental Firm Injection Right	\$1.023			
d) Annual Interruptible Withdrawal Right: Applied to the contracted Maximum Annual Interruptible Withdrawal Right	\$1.023			

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	Demand Charge <u>Rate/GJ/mo</u>	Commodity Charge <u>Rate/GJ</u>	<u>For Customers Providing Their Own Compressor Fuel</u>	
			Fuel Ratio	Commodity Charge <u>Rate/GJ</u>
e) Withdrawal Commodity Paid on all quantities withdrawn from storage up to the Maximum Daily Storage Withdrawal Quantity		\$0.056	0.631%	\$0.004
f) Injection Commodity Paid on all quantities injected into storage up to the Maximum Daily Storage Injection Quantity		\$0.056	0.631%	\$0.004
g) Short Term Storage / Balancing Service Maximum		\$3.000		

Notes:

1. Demand charges for Annual Services are paid monthly during the term of the contract for not less than one year unless Union, in its sole discretion, accepts a term of less than one year. Demand charges apply whether Union or the customer provides the fuel.
2. Annual Firm Injection Rights are equal to 100% of their respective Annual Firm Withdrawal Rights. Injection Rights in excess of the Annual Firm Injection Rights will be charged at the Incremental Firm Injection Right.
3. Storage Space and Withdrawal Rights are not assignable to any other party without the prior written consent of Union. Storage and withdrawal rights are for the exclusive purpose of meeting the requirements of the specific locations included in each contract.
4. Deliverability Inventory being defined as 20% of annual storage space.
5. Short Term Storage / Balancing Service is:
 - i) a combined space and interruptible deliverability service for short-term or off-peak storage in Union's storage facilities, OR
 - ii) short-term firm deliverability, OR
 - iii) a component of an operational balancing service offered.

In negotiating the rate to be charged for service, the matters that are to be considered include:

- i) The minimum amount of storage service to which a customer is willing to commit,
- ii) Whether the customer is contracting for firm or interruptible service during Union's peak or non-peak periods,
- iii) Utilization of facilities, and
- iv) Competition

1

TRANSPORTATION CHARGES:

	Demand Charge Rate/m ³ /mo	Commodity Charge Rate/m ³	For Customers Providing Their Own Compressor Fuel	
			Fuel Ratio (5)	Commodity Charge Rate/m ³
a) Annual Firm Transportation Demand Applied to the Firm Daily Contract Demand (CD)				
	31.5303			
CD < 140,870 m ³	23.0820			
140,870 m ³ ≤ CD < 422,610 m ³				
422,610 m ³ ≤ CD < 1,126,964 m ³	14.6293			
CD ≥ 1,126,964 m ³	10.6872			
b) Firm Transportation Commodity Paid on all firm quantities redelivered to the customer's Point(s) of Consumption		0.2912	0.554%	0.0943
c) Interruptible Transportation Commodity Paid on all interruptible quantities redelivered to the customer's Point(s) of Consumption Maximum		2.9613¢	0.554%	2.7644¢

Notes:

1. All demand charges are paid monthly during the term of the contract for not less than one year unless Union, at its sole discretion, accepts a term of less than one year. Demand charges apply whether Union or the customer provides the fuel.
2. In negotiating the rate to be charged for the transportation of gas under Interruptible Transportation, the matters that are to be considered include:
 - a) The amount of the interruptible transportation for which customer is willing to contract,
 - b) The anticipated load factor for the interruptible transportation quantities,
 - c) Interruptible or curtailment provisions, and
 - d) Competition.
3. In each contract year, the customer shall pay for a Minimum Interruptible Transportation Activity level as specified in the Contract. Overrun activity will not contribute to the minimum activity level.
4. Either Union or a customer, or potential customer, may apply to the Ontario Energy Board to fix rates and other charges different from the rates and other charges specified herein if the changed rates and other charges are considered by either party to be necessary, desirable and in the public interest.
5. Transportation fuel ratio does not apply to customers served from dedicated facilities directly connected to third party transmission systems with custody transfer metering at the interconnect.

SUPPLEMENTAL CHARGES:

Rates for supplemental services are provided in Schedule "A".

Notes:

1. All demand charges are paid monthly during the term of the contract for not less than one year unless Union, in its sole discretion, accepts a term of less than one year.

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1 OVERRUN SERVICE:
2

3 1. Annual Storage Space
4

5 Authorized
6

7 Authorized Overrun is provided as Storage/Balancing Service. It is payable on all quantities on any Day in excess
8 of the customer's contracted Maximum Storage Space. Overrun will be authorized by Union at its sole discretion.
9 Storage Space Overrun equal to the customer's firm deliveries from TCPL: less the customer's Firm Daily
10 Contract Demand, all multiplied by the Days of Interruption called during the period of November 1 to March 31,
11 will be automatically authorized until the following July 1.
12

13 Unauthorized
14

15 If in any month, the customer has gas in storage in excess of the contracted Maximum Storage Space, and which
16 has not been authorized by Union or provided for under a short term supplemental storage service, such an event
17 will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate will be \$1.745 per GJ
18 applied to the greatest excess for each occurrence.
19

20 If on any Day the gas storage balance for the account of the customer is less than zero, the Unauthorized Overrun
21 charge will apply for each GJ of gas below a zero inventory level and this amount of gas shall be deemed not to
22 have been withdrawn from storage. The gas shall be deemed to have been sold to the customer at the highest
23 spot price at Dawn in the month of occurrence and the month following occurrence as identified in the Canadian
24 Gas Price Reporter and shall not be less than Union's approved weighted average cost of gas. If the customer
25 has contracted to provide its own deliverability inventory, the zero inventory level shall be deemed to mean twenty
26 percent (20%) of the Annual Firm Storage Space.
27

28 2. Injection, Withdrawals and Transportation
29

30 Authorized
31

32 The following Overrun rates are applied to any quantities transported, injected or withdrawn in excess of 103% of
33 the Contract parameters. Overrun will be authorized by Union at its sole discretion.
34

35 Automatic authorization of Injection Overrun will be given during all Days a customer has been interrupted.
36

	Union Providing Fuel	For Customers Providing Their Own Compressor Fuel Firm or Interruptible Service	
	Firm or Interruptible Service	Fuel Ratio	Commodity Charge
Storage Injections	\$0.155/GJ	1.05%	\$0.069/GJ
Storage Withdrawals	\$0.155/GJ	1.05%	\$0.069/GJ
Transportation	0.8719 ¢/m ³	0.584%	0.6905 ¢/m ³

37 Unauthorized
38

39 For all quantities on any Day in excess of 103% of the customer's contractual rights, for which authorization has
40 not been received, the customer will be charged 6.5705¢ per m³ or \$1.745 per GJ, as appropriate.
41
42

1 3. Storage / Balancing Service

2 Authorized

3
4
5 The following Overrun rates are applied to any quantities stored in excess of the Contract parameters. Overrun
6 will be authorized by Union Gas at its sole discretion.
7

	<u>Firm Service Rate/GJ</u>
Space	\$0.937
Injection / Withdrawal Maximum	\$3.000

8
9
10 OTHER SERVICES & CHARGES:

11
12 1. Monthly Charge

13
14 In addition to the rates and charges described previously for each Point of Consumption, a Monthly Charge shall
15 be applied as follows:

Monthly Charge	\$1 800
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16
17
18
19 2. Diversion of Gas

20
21 The availability of the right to divert gas will be based on Union's ability to accommodate the diversion. The price
22 to be charged for the right to divert shall be determined through negotiation.
23

24 3. Unless otherwise authorized by Union, customers who are delivering gas to Union under direct purchase
25 arrangements must obligate to deliver at a point(s) specified by Union and must acquire and maintain firm
26 transportation on all upstream pipeline systems. Customers initiating direct purchase arrangements, who
27 previously received Gas Supply service, must also accept, unless otherwise authorized by Union, an assignment
28 from Union of transportation capacity on upstream pipeline systems.
29

30 (D) Delayed Payment

31
32 When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance
33 including previous arrears shall be increased by 1.5%.

APPENDIX J – PROPOSED U7 RATE

STORAGE AND DELIVERY RATES FOR UNBUNDLED CUSTOMERS

(A) Availability

Available to customers in Union's Southern Delivery Zone.

(B) Applicability

To a customer:

- a) whose combined firm and interruptible service minimum annual delivery of natural gas is 5 000 000 m³ or greater;
- b) who enters into an Unbundled Service Contract with Union for the delivery or the storage and delivery of Gas for use at facilities located within Union's gas franchise area;
- c) who has meters with electronic recording at each Point of Consumption;
- d) who nominates injections and withdrawals from storage, deliveries on upstream pipeline systems daily, or Ontario Producers authorized to sell to third parties;
- e) for whom Union has determined delivery and/or storage capacity is available; and
- f) who has site specific energy measuring equipment installed at each Point of Consumption that will be used in determining energy balances.

For the purposes of qualifying for a rate class, the total quantities of gas consumed or expected to be consumed on the customer's property will be used, irrespective of the number of meters installed.

(C) Rates

The following rates shall be charged for all volumes contracted or handled as appropriate. The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.

STORAGE SERVICE

	<u>Demand Charge</u> <u>Rate/GJ/mo</u>	<u>Fuel</u> <u>Ratio</u>	<u>Commodity Charge</u> <u>Rate/GJ</u>
i) Standard Storage Service (SSS)			
a) Combined Storage Space & Deliverability Applied to contracted Maximum Storage Space	\$0.022		
b) Injection Commodity		0.631%	\$0.013
c) Withdrawal Commodity		0.631%	\$0.013
ii) Supplemental Service			
a) Incremental Firm Injection Right (5) Applied to the contracted Maximum Incremental Firm Injection Right	\$0.929		
b) Incremental Firm Withdrawal Right (5) Applied to the contracted Maximum Incremental Firm Withdrawal Right	\$0.929		
c) Short Term Storage / Balancing Service - Maximum			\$3.000

Notes:

1. Demand charges for Annual Services are paid monthly during the term of the Contract, which shall not be less than one year, unless Union, in its sole discretion, accepts a term of less than one year.
2. Daily Firm Injection and Withdrawal Rights shall be pursuant to the Storage Contract.
3. Storage Space, Withdrawal Rights, and Injection Rights are not assignable to any other party without the prior written consent of Union and where necessary, approval from the Ontario Energy Board.
4. Short Term Storage / Balancing Service (less than 2 years) is:
 - i) a combined space and interruptible deliverability service for short-term or off-peak storage in Union's storage facilities, OR
 - ii) short-term incremental firm deliverability, OR
 - iii) a component of an operational balancing service offered.

In negotiating the rate to be charged for service, the matters that are to be considered include:

- i) The minimum amount of storage service to which a customer is willing to commit,
 - ii) Whether the customer is contracting for firm or interruptible service during Union's peak or non-peak periods,
 - iii) Utilization of facilities,
 - iv) Competition, and
 - v) Term.
5. Union's ability to offer incremental injection and withdrawal rights is subject to annual asset availability.

DELIVERY SERVICE

	<u>Demand Charge</u> Rate/m ³ /mo	<u>Fuel</u> Ratio	<u>Commodity Charge</u> Rate/ m ³
a) Annual Firm Delivery Demand Applied to the Firm Daily Contracted Demand			
CD < 140,870 m ³	31.5303		
140,870 m ³ ≤ CD < 422,610 m ³	23.0820		
422,610 m ³ ≤ CD < 1,126,964 m ³	14.6293		
CD ≥ 1,126,964 m ³	10.6872		
b) Firm Delivery Commodity Paid on all firm volumes redelivered to the customer's Point(s) of Consumption		0.554%	0.0943
c) Interruptible Delivery Commodity Paid on all interruptible volumes redelivered to the customer's Point of Consumption – Maximum		0.554%	2.7644¢

Notes:

1. All demand charges are paid monthly during the term of the Contract, which shall not be less than one year unless Union, at its sole discretion, accepts a term of less than one year.
2. In negotiating the rate to be charged for the delivery of gas under interruptible Delivery, the matters that are to be considered include:
 - a) The amount of the Interruptible Delivery for which customer is willing to contract,
 - b) The anticipated load factor for the Interruptible Delivery volumes,
 - c) Interruptible or curtailment provisions, and
 - d) Competition.
3. In each contract year, the customer shall pay for a Minimum Interruptible Delivery Activity level as specified in the Contract. Overrun activity will not contribute to the minimum activity level.

OVERRUN SERVICE

1. Injection and Withdrawal

Authorized

	<u>Fuel Ratio</u>	<u>Commodity Charge Rate/GJ</u>
Injection	1.05%	\$0.044
Withdrawal	1.05%	\$0.044

The Authorized Overrun rate is payable on all quantities on any Day in excess of the customer's contractual rights, for which authorization has been received. Overrun will be authorized by Union at its sole discretion.

Unauthorized

If in any month, the customer has gas in storage in excess of the contracted Maximum Storage Space or the gas storage balance for the account of the customer is less than zero or the customer has injected or withdrawn volumes from storage which exceeds their contractual rights, and which has not been authorized by Union or provided for under a short term storage/balancing service, such an event will constitute an occurrence of Unauthorized Overrun. The Unauthorized Overrun rate during the November 1 to April 15 period will be \$50.00 per GJ. The Unauthorized Overrun rate during the April 16 to October 31 period will be \$1.745 per GJ.

1 2. Delivery

2 Authorized

3
4
5 The following Authorized Overrun rates are applied to any volumes transported in excess of 103% of the Contract
6 parameters. Overrun will be authorized by Union at its sole discretion.

	<u>Fuel</u> <u>Ratio</u>	<u>Commodity</u> <u>Charge</u> <u>Rate/ m³</u>
Delivery	0.584%	0.6905¢

7
8 Unauthorized

9
10 For all volumes on any Day in excess of 103% of the customer's contractual rights, for which authorization has not
11 been received, the customer will be charged a rate of 6.5705¢ per m³.

12
13 OTHER SERVICES & CHARGES

14
15 1. Monthly Charge

16
17 In addition to the rates and charges described previously for each Point of Consumption, a Monthly Charge shall
18 be applied as follows:

19
20 Monthly Charge \$1 800 per month

21 2. Unless otherwise authorized by Union, customers who are delivering gas to Union under direct purchase
22 arrangements must commit to provide a call at Parkway, throughout the winter period, for a specified number of
23 days. Customers initiating direct purchase arrangements, who previously received Gas Supply service, must also
24 accept, unless otherwise authorized by Union, an assignment from Union of transportation capacity on upstream
25 pipeline systems.

26
27 3. Nomination Variances

28
29 The rate for unauthorized parking or drafting which results from nomination variances shall be equal to 50% of the
30 "Daily Balancing Fee" rate as described under Article XXII of TransCanada PipeLines Transportation Tariff.
31 During the period September 1 to November 30, and February 1 to April 30, no Daily Balancing Fee is payable on
32 the portion of the nomination variance which is less than the greater of 4% of the nominated amount and 150
33 GJ's. For the remainder of the year, no Daily Balancing Fee is payable on the portion of the nomination variance
34 which is less than the greater of 8% of the nominated amount and 302 GJ's.

35
36
37 (D) Delayed Payment

38
39 When payment of the monthly bill has not been made in full 16 days after the bill has been issued, the unpaid balance
40 including previous arrears shall be increased by 1.5%.

1 **APPENDIX K – M12 RATE**

2 **TRANSPORTATION RATES**

3 (A) Applicability

4
5 The charges under this schedule shall be applicable to a Shipper who enters into a Transportation Service Contract with
6 Union.
7

8 (B) Services

9
10 Transportation service under this rate schedule shall be for transportation on Union's Dawn – Oakville facilities.
11

12 (C) Rates

13
14 The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may
15 also be negotiated, which may be higher than the identified rates.
16

	Monthly Demand Charge (applied to daily contract demand) Rate/GJ	If Union supplies fuel Commodity Charge Rate/GJ	Commodity and Fuel Charges		Commodity Charge Rate/GJ
			Fuel Ratio %	If Shipper supplies fuel AND	
<u>Firm Transportation (1)</u>					
Dawn to Oakville/Parkway	\$2.334		Monthly fuel rates and ratios shall be in accordance with schedule "C".		
Dawn to Kirkwall	\$1.968				
Parkway to Dawn	n/a				
<u>Limited Firm/Interruptible Transportation (1)</u>					
Dawn to Parkway – Maximum	\$5.602		Monthly fuel rates and ratios shall be in accordance with Schedule "C".		
Dawn to Kirkwall – Maximum	\$5.602				
Parkway (TCPL) to Parkway (Cons) (2)		n/a	0.35%		n/a
<u>Dehydration (3)</u>					
Tecumseh Dehydration	\$0.045	\$0.001	n/a		\$0.001

Authorized Overrun (4)

Authorized overrun rates will be payable on all quantities in excess of Union's obligation on any day. The overrun charges payable will be calculated at the following rates. Overrun will be authorized at Union's sole discretion.

	If Union supplies fuel Commodity Charge Rate/GJ	Commodity and Fuel Charges		Commodity Charge Rate/GJ
		Fuel Ratio %	If Shipper supplies fuel AND	
<u>Transportation Overrun</u>				
Dawn to Parkway		Monthly fuel rates and ratios shall be in accordance with schedule "C".		
Dawn to Kirkwall				\$0.077
Parkway to Dawn				\$0.065
Parkway (TCPL) Overrun (5)	n/a	0.92%		\$0.077
<u>Dehydration (3)</u>				
Tecumseh Dehydration	\$0.003	n/a		\$0.003

1 (C) Rates (cont'd)

2
3 Unauthorized Overrun (4)

4
5 Authorized Overrun rates will be payable on all quantities up to 2% in excess of Union's contractual obligation.

6
7 The Unauthorized Overrun rate shall be the higher of the reported daily spot price of gas at either Dawn, Parkway,
8 Niagara or Iroquois in the month of or the month following the month in which the overrun occurred plus 25% for all
9 usage on any day in excess of 102% of Union's contractual obligation.

10
11 Nomination Variances

12
13 Where Union and the shipper have entered into a Limited Balancing Agreement ("LBA"), the rate for unauthorized
14 parking or drafting which results from nomination variances shall equal the "Balancing Fee" rate as described under
15 Article XXII of TransCanada PipeLines Transportation Tariff.

16
17 Notes for Section (C) Rates:

- 18
19 (1) The annual transportation commodity charge is calculated by application of the YCRR Formula, as per Section
20 (D). The annual transportation fuel required is calculated by application of the YCR Formula, as per Section (D).
21
22 (2) This rate is for westerly transportation within the Parkway yard, from Parkway (TCPL) to Parkway (Cons) or
23 Lisgar.
24
25 (3) Monthly dehydration demand charges on this schedule are only applicable to the Enbridge/Tecumseh storage
26 facility. Commodity charges are applicable to all quantities withdrawn from the Enbridge/Tecumseh storage
27 facility on any day that Union's Dawn dehydrator unit is in operation.
28
29 (4) For purposes of applying the YCRR Formula or YCR Formula (Section (D)) to transportation overrun quantities,
30 the transportation commodity revenue will be deemed to be equal to the commodity charge of the applicable
31 service as detailed in Section (B).
32
33 (5) This ratio will be applied to all gas quantities for which Union is obligated to deliver to Parkway (Cons) or Lisgar
34 and has agreed to deliver to Parkway (TCPL) on an interruptible basis. This will be in addition to any rate or ratio
35 paid for transportation easterly to Parkway (Cons) or Lisgar.
36

37 (D) Transportation Commodity

38
39 The annual fuel charge in kind or in dollars for transportation service in any contract year shall be equal to the sum of
40 the application of the following equation applied monthly for the 12 months April through March (The "YCRR" or "YCR"
41 Formula). An appropriate adjustment in the fuel charges will be made in May for the previous 12 months ending March
42 31st to obtain the annual fuel charges as calculated using the applicable "YCRR" or "YCR" Formula. At Union's sole
43 discretion Union may make more frequent adjustments than once per year. The YCCR and YCR adjustments must be
44 paid/remitted to/from Shippers at Dawn within one billing cycle after invoicing.
45

46
47
$$\text{YCR} = \sum_1^4 [(0.003505 \times (\text{QT1} + \text{QT3})) + (\text{DSF} \times (\text{QT1} + \text{QT3})) + \text{F}_{\text{ST}}] \text{ For June 1 to Sept. 30}$$

48
49 plus

50
51
$$\sum_5^{12} [(0.003505 \times (\text{QT1} + \text{Q3})) + (\text{DWF} \times \text{QT1}) + \text{F}_{\text{WT}}] \text{ For Oct. 1 to May 31}$$

1 **SCHEDULE A - RATE M12**

2 **GENERAL TERMS & CONDITIONS**

3
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1 I. DEFINITIONS
2

3 Except where the context expressly requires or states another meaning, the following terms, when used in these General Terms
4 & Conditions and in any contract into which these General Terms & Conditions are incorporated, shall be construed to have the
5 following meanings:
6

- 7 1. "Contract" shall refer to the contract to which these General Terms & Conditions shall apply, and into which they are
8 incorporated;
9
- 10 2. "cubic metre" shall mean the volume of gas which occupies one cubic metre when such gas is at a temperature of 15
11 degrees Celsius, and at a pressure of 101.325 kilopascals absolute;
12
- 13 3. "day" shall mean a period of twenty-four (24) consecutive hours beginning at 9:00 a.m. Central Standard time. The
14 reference date for any day shall be the calendar date upon which the twenty-four (24) hour period shall commence;
15
- 16 4. "delivery" shall mean any gas that is delivered by Union into Shipper's possession, or to the possession of Shipper's
17 agent;
18
- 19 5. "firm" shall mean service not subject to curtailment or interruption except under Articles XI and XII of this Schedule "A";
20
- 21 6. "gas" shall mean gas as defined in the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Sch. B, as amended,
22 supplemented or re-enacted from time to time;
23
- 24 7. "gross heating value" shall mean the total heat expressed in megajoules per cubic metre (MJ/m³) produced by the
25 complete combustion at constant pressure of one (1) cubic metre of gas with air, with the gas free of water vapour and
26 the temperature of the gas, air and products of combustion at standard temperature and all water formed by the
27 combustion reaction condensed to the liquid state;
28
- 29 8. "interruptible service" shall mean service subject to curtailment or interruption, after notice, at any time;
30
- 31 9. "Interconnecting Pipeline" shall mean a pipeline that directly connects to the Union pipeline system;
32
- 33 10. "joule" (J) shall mean the work done when the point of application of a force of one (1) newton is displaced a distance
34 of one (1) metre in the direction of the force. The term "megajoule" (MJ) shall mean 1,000,000 joules. The term
35 "gigajoule" (GJ) shall mean 1,000,000,000 joules;
36
- 37 11. "limited interruptible service" shall mean gas service subject to interruption or curtailment on a limited number of days
38 as specified in the Contract;
39
- 40 12. "m³" shall mean cubic metre of gas and "10³m³" shall mean 1,000 cubic metres of gas;
41
- 42 13. "month" shall mean the period beginning at 9:00 a.m. Central Standard time on the first day of a calendar month and
43 ending at 9:00 a.m. Central Standard time on the first day of the following calendar month;
44
- 45 14. "OEB" means the Ontario Energy Board;
46
- 47 15. "pascal" (Pa) shall mean the pressure produced when a force of one (1) newton is applied to an area of one (1) square
48 metre. The term "kilopascal" (kPa) shall mean 1,000 pascals;
49
- 50
- 51 16. "receipt" shall mean any gas that is delivered into Union's possession, or the possession of Union's agent;
52
- 53
- 54 17. "Services" shall include Transportation Services as defined in the Contract;
55
- 56 18. "Shipper" shall have the meaning as defined in the Contract and shall also include Shipper's agent(s);

1
2 19. "TCPL" means TransCanada PipeLines Limited;

3 II. GAS QUALITY

4
5 1. Natural Gas: The minimum gross heating value of the gas delivered to/by Union hereunder, shall be thirty-six (36)
6 megajoules per cubic metre. The maximum gross heating value of the gas delivered to/by Union hereunder shall be
7 forty point two (40.2) megajoules per cubic metre. The gas to be delivered hereunder to Union may be a commingled
8 supply from Shipper's natural gas sources of supply. The gas to be delivered by Union may be a commingled supply
9 from Union's sources of gas supply; provided, however, that helium, natural gasoline, butane, propane and other
10 hydrocarbons except methane may be removed prior to delivery to Shipper. Further, Union may subject, or permit the
11 subjection of, the gas to compression, dehydration, cooling, cleaning and other processes.

12
13 2. Freedom from objectionable matter: The gas to be delivered to/by Union hereunder,

14
15 a. shall be commercially free from sand, dust, gums, crude oils, lubricating oils, liquids, chemicals or
16 compounds used in the production, treatment, compression or dehydration of the gas or any other
17 objectionable substance in sufficient quantity so as to render the gas toxic, unmerchantable or cause injury to
18 or interference with the proper operation of the lines, regulators, meters or other appliances through which it
19 flows,

20
21 b. shall not contain more than seven (7) milligrams of hydrogen sulphide per cubic metre of gas nor more than
22 four hundred and sixty (460) milligrams of total sulphur per cubic metre of gas as determined by standard
23 methods of testing,

24
25 c. shall not contain more than five (5) milligrams of mercaptan sulphur per cubic metre of gas,

26
27 d. shall not contain more than two point zero (2.0) molar percent by volume of carbon dioxide in the gas,

28
29 e. shall not contain more than zero point five (0.5) molar percent by volume of carbon monoxide in the gas,

30
31 f. shall not contain more than zero point four (0.4) molar percent by volume of oxygen in the gas,

32
33 g. shall not contain more than four point zero (4.0) molar percent by volume of hydrogen in the gas,

34
35 h. shall not contain more than sixty-five (65) milligrams of water vapour per cubic metre of the gas,

36
37 i. shall not have a hydrocarbon dewpoint exceeding minus ten (-10) degrees Celsius at five thousand-five
38 hundred (5500) kPa pressure,

39
40 j. shall not contain less than one point zero (1.0) molar percent by volume of ethane in the gas.

41
42 k. shall at all times be interchangeable with other pipeline gas such that the yellow tipping, flashback and lifting
43 factors shall be within the range permitted for gas according to AGA Research Bulletin No. 36.

44
45 l. Despite the foregoing, Union will also accept gas of a quality as set out in any other Interconnecting
46 Pipeline's general terms and conditions, provided that all Interconnecting Pipelines similarly accept such
47 quality of gas.

48
49 3. In addition to any other right or remedy of a party, each party shall be entitled to refuse to accept delivery of any gas
50 which does not conform to any of the specifications set out in Section 2.

51
52 III. MEASUREMENTS

53
54 1. Storage, Transportation, and/or Sales Unit: ("The Unit") The Unit of the gas delivered to Union shall be a megajoule or
55 a gigajoule. The unit of gas transported or stored by Union shall be a megajoule or a gigajoule. The unit of gas

1 delivered by Union shall be a megajoule, a gigajoule, a cubic metre (m³) or one thousand cubic metres (10³m³) at
2 Union's discretion.
3

4 2. Determination of Volume and Energy:
5

6 a. The volume and energy amounts determined under the Contract shall be determined in accordance with the
7 Electricity and Gas Inspection Act (Canada), assented to 31 March, 1982 and the Electricity and Gas
8 Inspection Regulations, P.C. 1986-116, 16 January, 1986, and any documents issued under the authority of
9 the Act and Regulations and any amendments thereto.

10 b. The supercompressibility factor shall be determined in accordance with either the "Manual for Determination
11 of Supercompressibility Factors for Natural Gas" (PAR Project NX-19) published in 1962 or with American
12 Gas Association Transmission Measurement Committee Report No. 8, Nov. 1992, at Union's discretion, all
13 as amended from time to time.
14

15 c. The volume and/or energy of the gas delivered to/by Union hereunder shall be determined by the
16 measurement equipment designated in Article VII - Measuring Equipment, of this schedule.
17
18
19

20 IV. RECEIPT POINT, DELIVERY POINT AND DELIVERY PRESSURES
21

22 1. Unless otherwise specified in the Contract, the point or points of receipt for all gas to be covered hereunder shall be on
23 the outlet side of the measuring stations located at or near the point or points of connection specified in the Contract,
24 where Union takes possession of the gas.
25

26 2. Unless otherwise specified in the Contract, the point or points of delivery for all gas to be covered hereunder shall be
27 on the outlet side of the measuring stations located at or near the point or points of connection as specified in the
28 Contract where Shipper takes possession of the gas.
29

30 3. Under no circumstances shall Union be obligated to receive or deliver gas hereunder at pressures exceeding the
31 maximum allowable operating pressures prescribed under any applicable governmental regulations; nor shall Union be
32 required to make any physical deliveries or to accept and physical receipts which its existing facilities cannot
33 accommodate.
34

35 V. POSSESSION OF AND RESPONSIBILITY FOR GAS
36

37 1. Possession of Gas:
38

39 a. Union accepts no responsibility for any gas prior to such gas being delivered to Union at the Receipt Point or
40 after its delivery by Union at the Delivery Point. As between the parties hereto, Union shall be deemed to be
41 in control and possession of and responsible for all such gas from the time that such gas enters Union's
42 system until such gas is delivered to Shipper.
43

44 b. Shipper agrees that Union is not a common carrier and is not an insurer of Shipper's gas, and that Union
45 shall not be liable to Shipper or any third party for loss of gas in Union's possession, except to the extent
46 such loss is caused by Union's negligence or wilful misconduct.

47 2. Title to Gas: Shipper represents and warrants to Union that Shipper shall have good and marketable title to, or legal
48 authority to deliver to Union, all gas delivered to Union hereunder. Furthermore, Shipper hereby agrees to indemnify
49 and save Union harmless from all suits, actions, debts, accounts, damages, costs, losses and expenses arising from or
50 out of claims of any or all third parties to such gas or on account of royalties, taxes, license fees, or other charges
51 thereon.
52

53 3. Commingling: Union shall have the right to commingle the quantity of gas referenced herein with gas owned by Union
54 or gas being stored and/or transported by Union for third parties.
55

56 VI. FACILITIES ON SHIPPER'S PROPERTY

March 20, 2006

1 Except under those conditions where Union is delivering to TCPL for TCPL or Shipper at Union's Parkway Point of Delivery, or to
2 an Interconnecting Pipeline, or where otherwise specified in the Contract, the following will apply:
3

- 4 1. Construction and Maintenance: Union, at its own expense may construct, maintain and operate on Shipper's property
5 at the delivery point a measuring station properly equipped with a meter or meters and any other necessary measuring
6 equipment for properly measuring the gas redelivered under the Contract. Shipper will grant to Union a lease and/or
7 rights-of-way over property of Shipper as required by Union to install such facilities and to connect same to Union's
8 pipeline.
9
- 10 2. Entry: Union, its servants, agents and each of them may at any reasonable time on notice (except in cases of
11 emergency) to Shipper or his duly authorized representative enter Shipper's property for the purpose of constructing,
12 maintaining, removing, operating and/or repairing station equipment.
13
- 14 3. Property: The said station and equipment will be and remain the property of Union notwithstanding it is constructed on
15 and attached to the realty of Shipper, and Union may at its own expense remove it upon termination of the Contract
16 and will do so if so requested by Shipper.
17
18

19 VII. MEASURING EQUIPMENT
20

- 21 1. Metering by Union: Union will install and operate meters and related equipment as required and in accordance with
22 the Act and Regulations referenced in Article III subparagraph 2.a.
23
- 24 2. Metering by Others: In the event that all or any gas delivered to/by Union hereunder is measured by a meter that is
25 owned and operated by an Interconnecting Pipeline, then Union and Shipper agree to accept that metering for the
26 purpose of determining the volume and energy of gas delivered to/by Union on behalf of the Shipper. The standard of
27 measurement and tests for the gas delivered to/by Union hereunder shall be in accordance with the general terms and
28 conditions as incorporated in that Interconnecting Pipeline's gas tariff as approved by their regulatory body.
29
- 30 3. Measurement of Interconnecting Pipelines: Upon request of Union, Shipper shall obtain measurement of the total
31 quantity of gas received by Union hereunder from the Interconnecting Pipeline. Such measurement shall be done in
32 accordance with established practices between Union and the Interconnecting Pipeline.
33
- 34 4. Measurement Error of Interconnecting Pipelines: In the event of an error in metering or a meter failure, (such error or
35 failure being determined through check measurement by Union or any other available method), then Shipper shall
36 enforce its rights as Shipper with the Interconnecting Pipeline(s) to remedy such error or failure including enforcing any
37 inspection and/or verification rights and procedures.
38
- 39 5. Check Measuring Equipment: Shipper may install, maintain and operate, at the delivery point, at its own expense,
40 such check measuring equipment as desired, provided that such equipment shall be so installed as not to interfere with
41 the operation of Union's measuring equipment at or near the delivery point, and shall be installed, maintained and
42 operated in conformity with the same standards and specifications applicable to Union's metering facilities.
43
- 44 6. Rights of Parties: The measuring equipment installed by either party, together with any building erected by it for such
45 equipment, shall be and remain its property. However, Union and Shipper shall have the right to have representatives
46 present at the time of any installing, reading, cleaning, changing, repairing, inspecting, testing, calibrating, or adjusting
47 done in connection with the other's measuring equipment used in measuring or checking the measurement of
48 deliveries of gas to/by Union under the Contract. Either party will give the other party reasonable notice of its intention
49 to carry out the acts herein specified. The records from such measuring equipment shall remain the property of their
50 owner, but upon request each will submit to the other its records and charts, together with calculations therefrom, for
51 inspection and verification, subject to return within ten days after receipt thereof.
52
- 53 7. Calibration and Test of Measuring Equipment: The accuracy of Union's measuring equipment shall be verified by
54 Union at reasonable intervals, and if requested, in the presence of representatives of Shipper, but Union shall not be
55 required to verify the accuracy of such equipment more frequently than once in any thirty (30) day period. In the event
56 either party shall notify the other that it desires a special test of any measuring equipment, the parties shall co-operate
to secure a prompt verification of the accuracy of such equipment. The expense of any such special test, if called for

1 by Shipper, shall be borne by Shipper if the measuring equipment tested is found to be in error by not more than two
2 per cent (2%). If, upon test, any measuring equipment is found to be in error by not more than two per cent (2%),
3 previous recordings of such equipment shall be considered accurate in computing redeliveries of gas, but such
4 equipment shall be adjusted at once to record as near to absolute accuracy as possible. If the test conducted shows a
5 percentage of inaccuracy greater than two percent (2%), the financial adjustment, if any, shall be calculated in
6 accordance with the Electricity and Gas Inspection Act (1982) and regulations thereunder, as may be amended from
7 time to time and in accordance with any successor statutes and regulations.
8

- 9 8. Preservation of Metering Records: Union and Shipper shall each preserve for a period of at least six (6) years all test
10 data, and other relevant records.
11

12
13 VIII. BILLING
14

- 15 1. Monthly Billing Date: Union shall render bills on or before the 10th day of each month for all services furnished during
16 the preceding month. Such charges may be based on estimated quantities, if actual quantities are unavailable in time
17 to prepare the billing. Union shall provide, in a succeeding month's billing, an adjustment based on any difference
18 between actual quantities and estimated quantities, without any interest charge. If presentation of a bill to Shipper is
19 delayed after the 10th day of the month, then the time of payment shall be extended accordingly, unless Shipper is
20 responsible for such delay.
21
- 22 2. Right of Examination: Both Union and Shipper shall have the right to examine at any reasonable time the books,
23 records and charts of the other to the extent necessary to verify the accuracy of any statement, chart or computation
24 made under or pursuant to the provisions of the Contract.
25
- 26 3. Accounting for Services: All quantities of gas delivered to/by Union shall be accounted for on a daily basis.
27
28

29 IX. PAYMENTS
30

- 31 1. Monthly payments: Shipper shall unless otherwise directed by Union, pay directly into Union's account at the
32 Canadian Imperial Bank of Commerce, Chatham, Ontario by electronic funds transfer to transit 010 00282, account 00-
33 3301 if paying in Canadian funds; and, account 02-6717 if paying in US funds, so that Union shall receive payment
34 from Shipper, on or before the twentieth (20th) day of each month, payment on the bill provided by Union. If the
35 payment date is not a business day, then payment must be received in Union's account on the first business day
36 preceding the twentieth (20th) day of the month.
37
- 38 2. Remedies for nonpayment: Should Shipper fail to pay all of the amount of any bill as herein provided when such
39 amount is due,
40
- 41 a. Shipper shall pay to Union interest on the unpaid portion of the bill accruing at a rate per annum
42 equal to the minimum commercial lending rate of Union's principal banker in effect from time to time from the
43 due date until the date of payment.
44
- 45 b. If such failure to pay continues for thirty (30) days after payment is due, Union, in addition to any other
46 remedy it may have under the Contract, may suspend service(s) until such amount is paid. Notwithstanding
47 such suspension, all demand charges shall continue to accrue hereunder as if such suspension were not in
48 place.
49

50 If Shipper in good faith disputes the amount of any such bill or part thereof, Shipper shall pay to Union such amounts as it
51 concedes to be correct. At any time thereafter, within twenty (20) days of a demand made by Union, Shipper shall furnish
52 financial assurances satisfactory to Union, guaranteeing payment to Union of the amount ultimately found due upon such bill
53 after a final determination. Such a final determination may be reached either by agreement, arbitration decision or judgement of
54 the courts, as may be the case. Union shall not be entitled to suspend service(s) because of such non-payment unless and until
55 default occurs in the conditions of such financial assurances or default occurs in payment of any other amount due to Union
56 hereunder.

1
2 Notwithstanding the foregoing paragraphs, Shipper is not relieved from the obligation to continue its deliveries of gas to
3 Union under the terms of any agreement, where Shipper has contracted to deliver specified quantities of gas to Union.

- 4
5 3. Set Off: If either party shall, at any time, be in arrears under any of its payment obligations to the other party, under the
6 Contract, or otherwise indebted to the other party, then the party not in arrears shall be entitled to reduce the amount
7 payable by it to the other party in arrears under the Contract, or any other contract, by an amount equal to the amount
8 of such arrears or other indebtedness to the other party. In addition to the foregoing remedy, Union may, upon forty-
9 eight (48) hours verbal notice, to be followed by written notice, take possession of any or all of Shipper's gas under this
10 Contract and any enhancements to this Contract, which shall be deemed to have been assigned to Union, to reduce
11 such arrears or other indebtedness to Union.
12
13 4. Billing Adjustments: If it shall be found that at any time or times Shipper has been overcharged or undercharged in any
14 form whatsoever under the provisions of the Contract and Shipper shall have actually paid the bills containing such
15 overcharge or undercharge, Union shall refund the amount of any such overcharge and interest shall accrue from and
16 including the first day of such overcharge as paid to the date of refund and shall be calculated but not compounded at
17 a rate per annum determined each day during the calculation period to be equal to the minimum commercial lending
18 rate of Union's principal banker, and the Shipper shall pay the amount of any such undercharge, but without interest.
19 In the event Union renders a bill to Shipper based upon measurement estimates, the required adjustment to reflect
20 actual measurement shall be made on the bill next following the determination of such actual measurement, without
21 any charge of interest. In the event an error is discovered in the amount billed in any statement rendered by Union,
22 such error shall be adjusted by Union. Such overcharge, undercharge or error shall be adjusted by Union on the bill
23 next following its determination (where the term "bill" next following shall mean a bill rendered at least fourteen (14)
24 days after the day of its determination), provided that claim therefore shall have been made within six (6) years from
25 the date of the incorrect billing. In the event any refund is issued with Shipper's gas bill, the aforesaid date of refund
26 shall be deemed to be the date of the issue of bill.
27
28 5. Final Determination: For the purpose of completing a final determination of the actual quantities of gas handled in any
29 of the Services to Shipper, the parties shall have the right to amend their statements for a period equal to the time
30 during which the Interconnecting Pipeline retains the right to amend their statements, which period shall not exceed
31 three (3) years from the date of termination of the Contract.
32
33

34 X. ARBITRATION

35
36 If and when any dispute, difference or question shall arise between the parties hereto touching the Contract or anything herein
37 contained, or the construction hereof, or the rights, duties or liabilities of the parties in relation to any matter hereunder, the
38 matter in dispute shall be submitted and referred to arbitration within ten (10) days after written request of either party. Upon
39 such request each party shall appoint an arbitrator, and the two so appointed shall appoint a third. A majority decision of the
40 arbitrators shall be final and binding upon both parties. In all other respects the provisions of the Arbitration Act of the Province
41 of Ontario, or any Act passed in amendment thereof or substitution therefore, shall apply to each such submission. Operations
42 under the Contract shall continue, without prejudice, during any such arbitration and the costs attributable to such arbitration
43 shall be shared equally by the parties hereto.
44

45
46 XI. FORCE MAJEURE

- 47
48 1. The term "force majeure" as used herein shall mean acts of God, strikes, lockouts or any other industrial disturbance,
49 acts of the public enemy, sabotage, wars, blockades, insurrections, riots, epidemics, landslides, lightning,
50 earthquakes, fires, storms, floods, washouts, arrests and restraints of governments and people, civil disturbances,
51 explosions, breakage or accident to machinery or lines of pipe, freezing of wells or lines of pipe, inability to obtain
52 materials, supplies, permits or labour, any laws, orders, rules, regulations, acts or restraints of any governmental body
53 or authority (civil or military), any act or omission that is excused by any event or occurrence of the character herein
54 defined as constituting force majeure, any act or omission by parties not controlled by the party having the difficulty and
55 any other similar cases not within the control of the party claiming suspension and which by the exercise of due
56 diligence such party is unable to prevent or overcome.

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2. In the event that either the Shipper or Union is rendered unable, in whole or in part, by force majeure, to perform or comply with any obligation or condition of the Contract, such party shall give notice and full particulars of such force majeure in writing delivered by hand, fax or other direct written electronic means to the other party as soon as possible after the occurrence of the cause relied on and subject to the provision of this Article.
3. Neither party shall be entitled to the benefit of the provisions of force majeure hereunder if any or all of the following circumstances prevail: the failure resulting in a condition of force majeure was caused by the negligence of the party claiming suspension; the failure was caused by the party claiming suspension where such party failed to remedy the condition by making all reasonable efforts (short of litigation, if such remedy would require litigation); the party claiming suspension failed to resume the performance of such condition obligations with reasonable dispatch; the failure was caused by lack of funds; the party claiming suspension did not as soon as possible after determining or within a period within which it should acting reasonably have determined that the occurrence was in the nature of force majeure and would affect its ability to observe or perform any of its conditions or obligations under the Contract give to the other party the notice required hereunder.
4. The party claiming suspension shall likewise give notice as soon as possible after the force majeure condition is remedied, to the extent that the same has been remedied, and that such party has resumed or is then in a position to resume the performance of the obligations and conditions of the Contract.
5. An event of force majeure on Union's system will excuse the failure to deliver gas by Union or the failure to accept gas by Union hereunder, and both parties shall be excused from performance of their obligations hereunder and in the Contract, except for payment obligations, to the extent of and for the duration of the force majeure.
6. Upstream or Downstream Force Majeure: An event of force majeure upstream or downstream of Union's system shall not relieve Shipper of any payment obligations.
7. Delay of Firm Transportation Services: Despite Section 5, if Union is prevented, by reason of an event of force majeure on Union's system from delivering gas on the day or days upon which Union has accepted gas from Shipper, Union shall thereafter make all reasonable efforts to deliver such quantities as soon as practicable and on such day or days as are agreed to by Shipper and Union. If Union accepts such gas on this basis, Shipper shall not receive any demand charge relief as contemplated under Section 8 herein.
8. Demand Charge Relief for Transportation Services: If on any day Union fails to accept gas from Shipper by reason of an event of force majeure on Union's system and fails to deliver the quantity of gas nominated hereunder by Shipper up to the Contract Demand, then for that day the monthly demand charge shall be reduced by an amount equal to the applicable Daily Demand Rate, as defined in this paragraph, multiplied by the difference between the quantity of gas actually delivered by Union during such day and the quantity of gas which Shipper in good faith nominated on such day. The term "Daily Demand Rate" shall mean the monthly demand charge or equivalent (as stipulated in Article VIII of the Contract) divided by the number of days in the month for which such rate is being calculated.
9. If on any day, due to the occurrence of an event of force majeure as outlined above, Union is unable to receive or deliver the quantities of gas nominated on that day, Union will allocate the available capacity to firm shippers in proportion to those quantities which were nominated in good faith for that day by Shipper up to the Contract Demand. For greater clarity, the capacity that Union will allocate to each firm Shipper who has nominated for the service affected by an event of force majeure will be a percentage of the firm service nominated by that firm Shipper for that day divided by the sum of all firm Shippers' nominations multiplied by the total capacity available.

XII. DEFAULT AND TERMINATION

In case of the breach or non-observance or non-performance on the part of either party hereto of any covenant, proviso, condition, restriction or stipulation contained in the Contract (but not including herein failure to take or make delivery in whole or in part of the gas delivered to/by Union hereunder occasioned by any of the reasons provided for in Article XI hereof) which has not been waived by the other party, then and in every such case and as often as the same may happen, the Non-defaulting party may give written notice to the Defaulting party requiring it to remedy such default and in the event of such the Defaulting party failing to remedy the same within a period of thirty (30) days from receipt of such notice, the Non-defaulting party may at its sole

1 option declare the Contract to be terminated and thereupon the Contract shall be terminated and be null and void for all purposes
2 other than and except as to any liability of the parties under the same incurred before and subsisting as of termination. The right
3 hereby conferred upon each party shall be in addition to, and not in derogation of or in substitution for, any other right or remedy
4 which the parties respectively at law or in equity shall or may possess.
5

6
7 XIII. MODIFICATION
8

9 Without limiting the availability of Union to amend the M12 Rate Schedule with the approval of the OEB, no amendment or
10 modification of the Contract shall be effective unless the same shall be in writing and signed by each of the Shipper and Union.
11 No waiver of any provision of the Contract shall be effective unless the same shall be in writing and signed by the party entitled
12 to the benefit of such provision and then such waiver shall be effective only in the specific instance and for the specified purpose
13 for which it was given. No failure on the part of the Shipper or Union to exercise, and no course of dealing with respect to, and
14 no delay in exercising, any right, power or remedy under the Contract shall operate as a waiver thereof.
15

16 XIV. NON-WAIVER AND FUTURE DEFAULT
17

18 Intentionally blank.

19 XV. LAWS, REGULATIONS AND ORDERS
20

- 21 1. Compliance: The Contract and the respective rights and obligations of the parties hereto are subject to all present and
22 future valid laws, orders, rules and regulations of any competent legislative body, or duly constituted authority now or
23 hereafter having jurisdiction and the Contract shall be varied and amended to comply with or conform to any valid order
24 or direction of any board, tribunal or administrative agency which affects any of the provisions of the Contract.
25
- 26 2. Law of Contract: Union and Shipper agree that the Contract is made in the Province of Ontario and that, subject to
27 Article X, the courts of the Province of Ontario shall have exclusive jurisdiction in all matters contained herein. The
28 parties further agree the Contract shall be construed exclusively in accordance with the laws of the Province of Ontario.
29

30
31 XVI. LIMITATION OF LIABILITY
32

33 The liability of the parties hereunder is limited to direct damages only and all other remedies or damages are waived. In no event
34 shall either party be liable for consequential, incidental, punitive, or indirect damages, in tort, contract or otherwise.
35

36 XVII. MAINTENANCE OR CONSTRUCTION
37

38 Union's facilities from time to time may require maintenance or construction. If such maintenance or construction is required,
39 and in Union's sole opinion, acting reasonably, such maintenance or construction may impact Union's ability to meet Shipper's
40 requirements, Union shall provide at least ten (10) days notice to Shipper, except in the case of an emergency. In the event the
41 maintenance impacts on Union's ability to meet Shipper's requirements, Union shall not be liable for any damages and shall not
42 be deemed in breach of the Contract.
43

44 To the extent that Union's ability to accept and/or deliver Shippers gas is impaired, the monthly demand charge shall be reduced
45 in accordance with Article XI.
46

47 Union shall use reasonable efforts to determine a mutually acceptable period during which such maintenance or construction will
48 occur and also limit the extent and duration of any impairments. Union will endeavour to schedule and complete the
49 maintenance and construction, which would normally be expected to impact on Union's ability to meet Shipper's requirements,
50 during the period from April 1 through to November 1.
51

52
53 XVIII. NOTICES
54

55 All communications provided for or permitted hereunder shall be in writing, personally delivered to an officer or other responsible
56 employee of the addressee or sent by registered mail, charges prepaid, or by facsimile or other means of recorded

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1 telecommunication, charges prepaid, to the applicable address set forth in Section 11.01 of the Contract, or to such other
2 address as either party hereto may from time to time designate to the other in such manner, provided that no communication
3 shall be sent by mail pending any threatened, or during any actual, postal strike or other disruption of the postal service. Any
4 communication personally delivered shall be deemed to have been validly and effectively received on the date of such delivery.
5 Any communication so sent by facsimile or other means of telecommunication shall be deemed to have been validly and
6 effectively received on the business day following the day on which it is sent. Any communication so sent by mail shall be
7 deemed to have been validly and effectively received on the seventh business day following the day on which it is postmarked.
8

9 Notwithstanding the above, nominations shall be made by facsimile or other recorded electronic means, subject to execution of
10 the "Agreement for Use of the Secured Portion of Union Gas Limited's Website," or such other agreement, satisfactory to Union,
11 and will be deemed to be received on the same day and same time as sent.
12

13 Each party may from time to time change its address for the purpose of this Article by giving notice of such change to the other
14 party in accordance with this Article.
15

16 XIX FACILITY CONSTRUCTION

17
18
19 1. If the Contract requires Expansion Facilities (as defined in the Contract) to satisfy any Transportation Service, then to
20 the extent that such Expansion Facilities are only partially completed and placed in service by the Reference Date (as
21 defined in the Contract) or at any time thereafter, then any firm capacity available on such partially completed
22 Expansion Facilities (the "Partial Expansion Capacity") will be allocated in accordance with this Article XIX to all
23 Contracts: (a) which require the same Expansion Facilities for the Contract Demand; and (b) under which all conditions
24 precedent have been satisfied or waived except for such conditions precedent that relate to the completion and placing
25 in-service of the Expansion Facilities.
26

27 2. Such allocation shall be made in priority of the "Contract Value", such that the Contract with the greatest Contract
28 Value is allocated the entirety of the Contract Demand under such Contract, the Contract with the next greatest
29 Contract Value is allocated the entirety of the Contract Demand under that Contract, and so forth until all the Partial
30 Expansion Capacity has been allocated; provided that if there remains Partial Expansion Capacity that is less than the
31 entirety of the Contract Demand under a Contract, then such Contract shall only receive such lesser remaining Partial
32 Expansion Capacity. If any two or more Contracts have an equivalent Contract Value and insufficient Partial
33 Expansion Capacity remains to satisfy all such Contracts, then the remaining Partial Expansion Capacity will be
34 allocated pro-rata based on the contract demand among all such Contracts. For purposes of this Article, "Contract
35 Value" means an amount determined by calculating the monthly demand charges per GJ (as determined in
36 accordance with Section 8.01 of the Contract) multiplied by the Initial Term in months (as defined in the Contract).
37

38 3. If, pursuant to this Article, a Contract is allocated any portion of Partial Expansion Capacity, then the conditions
39 precedent that relate to the completion and placing in-service of the Expansion Facilities shall be deemed to have been
40 waived such that the Initial Term under the Contract will commence. If a Contract is not allocated the entirety of the
41 Contract Demand under such Contract, then such Contract Demand shall be deemed to be such lower allocated
42 amount (and for greater certainty, the Initial Term shall nevertheless be deemed to have commenced) until such time
43 as the Contract is allocated additional Partial Expansion Capacity pursuant to this Article or until the entirety of the
44 Expansion Facilities are completed and placed in-service.
45

46 4. The procedure contemplated by this Article will be applicable from time to time on each occasion that the Expansion
47 Facilities are incrementally completed and placed in service.
48

49 XX RENEWAL OF CONTRACT

50
51 The Contract will continue in full force and effect beyond the Initial Term as defined in the Contract, automatically renewing for a
52 period of one (1) year, and every one (1) year thereafter, subject to notice in writing by either party of termination at least two (2)
53 years prior to the expiration thereof. However, Union may only terminate the Contract under this provision if:
54

- 55 a. Union, in its sole discretion, requires all or some portion of the Contract service capacity to meet incremental in-
56 franchise demand;

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1
2 b. Union also provides notice of termination to all other Shippers with Contracts for similar service on Union's system;
3 and

4
5 c. Union prorates reductions to contract service quantities among all Shippers receiving termination notices based on
6 Contract Demand.

7
8 Union and Shipper, in good faith, will reasonably communicate and negotiate any desired changes in advance of any said notice
9 of termination as set out in the previous sentence.

10
11 XXI ASSIGNMENT

12
13 1. Permanent Assignment: Shipper may assign the Contract to a third party ("Assignee"), up to the Contract Demand, as
14 defined in Section 5.01 of the Contract (the "Capacity Assigned"). Such assignment shall require the prior written
15 consent of Union and release of obligations by Union for the Capacity Assigned from the date of assignment. Such
16 consent and release shall not be unreasonably withheld and shall be conditional upon the Assignee, providing,
17 amongst other things, financial assurances as per Subsection 3.01 (d), of the Contract. Any such assignment will be
18 for the full rights, obligations and remaining term of this Contract as relates to the Capacity Assigned.

19
20
21 2. Temporary Assignment: Shipper may, upon prior written notice to Union, assign all or a part of its service entitlement
22 under the Contract (the "Assigned Quantity") and the corresponding rights and obligations to an Assignee on a
23 temporary basis for not less than one calendar month. Notwithstanding such assignment, Shipper shall remain
24 obligated to Union to perform and observe the covenants and obligations contained herein in regard to the Assigned
25 Quantity to the extent that Assignee fails to do so.

26
27 XXII SHIPPER'S OBLIGATIONS

28
29 1. Nominations: Services provided hereunder shall be in accordance with the prescribed nominations procedure as set
30 out in Schedule B herein.

31
32 2. Shipper's Warranty: Shipper warrants that it will, if required, maintain, or have maintained on its behalf, all external
33 approvals including the governmental, regulatory, import/export permits, and other approvals or authorizations that are
34 required from any federal, state, or provincial authorities for the gas quantities handled under the Contract. Shipper
35 further warrants that it shall maintain in effect the Facilitating Agreements (as such term is defined in the Contract).

36 3. Financial Representations: Shipper represents and warrants that the financial assurances (including the Initial
37 Financial Assurances and Security) (if any) shall remain in place throughout the term hereof, unless Shipper and Union
38 agree otherwise. Shipper shall notify Union in the event of any changes to the financial assurances throughout the
39 term hereof. Should Union have reasonable grounds to believe that Shipper will not be able to perform or continue to
40 perform any of its obligations under the Contract as a result of one of the following events ("Material Event");

41 a. Shipper is in default, which default has not been remedied, of this Contract or is in default of any other material
42 contract with Union or another party; or,

43
44 b. Shipper's corporate or debt rating falls below investment grade according to at least one of the nationally
45 recognized rating agencies; or,

46
47 c. Shipper ceases to be rated by a nationally recognized agency; or,

48
49 d. Shipper has exceeded available credit limit, as determined by Union from time to time,

50
51 Then Shipper shall within fourteen (14) days of receipt of such written notice by Union, obtain and provide to Union a
52 letter of credit or other security in the form and amount reasonably required by Union (the "Security"). The Security
53 plus the Initial Financial Assurances shall not exceed twelve (12) months of monthly demand charges (in accordance
54 with Section 8.01 of the Contract) multiplied by Contract Demand. In the event that Shipper does not provide to Union

1 such Security within such fourteen (14) day period, Union may deem a default under the Default and Termination
2 provisions of Section XII of the General Terms & Conditions.
3

4 In the event that Shipper in good faith, reasonably believes that it should be entitled to reduce the amount of or value
5 of the Security previously provided, it may request such a reduction from Union and to the extent that the Material
6 Event has been mitigated or eliminated, Union shall return all or a portion of the Security to Shipper within fourteen
7 (14) business days after receipt of the request.

8
9 XXIII MISCELLANEOUS PROVISIONS

- 10
11 1. Industry Usage: Words, phrases or expressions which are not defined herein and which, in the usage or custom of the
12 business of the transportation, storage, and distribution or sale of natural gas have an accepted meaning shall have
13 that meaning.
14
15 2. Extended Meaning: Unless the context otherwise requires, words importing the singular include the plural and vice
16 versa, and words importing gender include all genders. The words "herein" and "hereunder" and words of similar
17 import refer to the entirety of the Contract, including the Schedules incorporated into the Contract, and not only to the
18 Section in which such use occurs.
19
20 3. Conflict: In the event of any conflict between the provisions of the Contract and Union's M12 Rate Schedule, the
21 provisions of Union's M12 Rate Schedule shall prevail over the Contract.
22
23 4. Measurements: Units set out in SI (metric) measurement are the governing units for the purpose of the Contract.
24 Units set out in Imperial measurement in parentheses beside their SI (metric) equivalent are for reference only and in
25 the event of a conflict between SI (metric) and Imperial measurement herein, SI (metric) shall prevail.
26
27 5. Currency: All reference to dollars in this Contract shall mean Canadian dollars.
28
29 6. Time of Essence: Time shall be of the essence hereof.
30
31 7. Counterparts: The Contract may be executed in any number of counterparts, each of which when so executed shall be
32 deemed to be an original, but all of which together shall constitute one and the same instrument. The Contract may be
33 executed by facsimile.
34
35 8. Severability: If any provision hereof is invalid or unenforceable in any jurisdiction, to the fullest extent permitted by law,
36 (a) the other provisions hereof shall remain in full force and effect in such jurisdiction and shall be construed in order to
37 carry out the intention of the parties as nearly as possible and (b) the invalidity or unenforceability of any provision
38 hereof in any jurisdiction shall not affect the validity or enforceability of any provision in any other jurisdiction.

1 **SCHEDULE B - RATE M12**

2 **NOMINATIONS**

3
4
5 a) For Services provided either under this rate schedule or referenced to this rate schedule:

6
7 i) For Services required on any day Shipper shall provide Union with a nomination (the "Shipper's Nomination") of the
8 quantity it desires to be handled at the applicable Receipt Point and/or Delivery Point. Such Shipper's Nomination is to be
9 provided in writing so as to be received by Union's Gas Management Services on or before 1230 hours in the Eastern time
10 zone, unless agreed to otherwise in writing by the parties, on the business day immediately preceding the day for which
11 service is requested.

12
13 ii) If, in Union's sole opinion, operating conditions permit, a change in Shipper's Nomination may be accepted after 1230
14 hours in the Eastern time zone.

15
16 b) Union shall determine whether or not all or any portion of Shipper's Nomination will be accepted. In the event Union
17 determines that it will not accept such nomination, Union shall advise Shipper, on or before 1730 hours in the Eastern time zone on
18 the business day immediately preceding the day for which service is requested, of the reduced quantity (the "Quantity Available") for
19 Services at the applicable points. Forthwith after receiving such advice from Union but no later than 1800 hours in the Eastern time
20 zone on the same day, Shipper shall provide a "Revised Nomination" to Union which shall be no greater than the Quantity Available.
21 If such Revised Nomination is not provided within the time allowed as required above or such Revised Nomination is greater than
22 the Quantity Available, then the Revised Nomination shall be deemed to be the Quantity Available. If the Revised Nomination
23 (delivered within the time allowed as required above) is less than the Quantity Available, then such lesser amount shall be the
24 Revised Nomination.

25
26 c) That portion of a Shipper's Nomination or Revised Nomination, as set out in (a) and (b), above, which Union shall accept for
27 Services hereunder, shall be known as Shipper's "Authorized Quantity".

28
29 d) Authorized Overrun shall mean the amount by which Shipper's Authorized Quantity exceeds the Contract Demand as
30 defined in the Contract.

31
32 e) Where requests for interruptible Services hereunder exceed the capacity available for such Services, Union will accept
33 nominations from shippers and allocate capacity based on the Services contracted, pricing for Services and prior quantities
34 moved, and shippers shall be so advised. Any interruptible services provided herein are subordinate to any and all firm services
35 supplied by Union.

36
37 f) Union reserves the right to change its procedures for sharing interruptible capacity and will provide Shipper with two (2)
38 months prior notice of any such change.

39
40
41 g) If on any day the actual quantities handled by Union, for each of the Services authorized, exceed Shipper's Authorized
42 Quantity, and such excess was caused by either Shipper's incorrect nomination or by its delivering or receiving too much gas, then
43 the amount by which the actual quantities handled for each of the Services exceed Shipper's Authorized Quantity, such excess shall
44 be deemed "Unauthorized Overrun".

45
46 h) The daily quantity of gas nominated by Shipper will be delivered by Shipper at rates of flow that are as nearly constant as
47 possible, however, Union shall use reasonable efforts to take receipt of gas on any day at an hourly rate of flow up to one twentieth
48 (1/20) of the quantity received for that day. Union shall have the right to limit Services when on any day the cumulative hourly
49 imbalance between receipts and deliveries exceeds one twentieth (1/20) of the quantity handled for that day, for each applicable
50 Service.

51
52 i) A nomination for a daily quantity of gas on any day shall remain in effect and apply to subsequent days unless and until

53 Union receives a new nomination from Shipper or unless Union gives Shipper written notice that it is not acceptable in

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1 accordance with either (a) or (b) of this schedule.

2
3 j) Except for periods of gas or quantity balancing as provided in the Contract, nominations by Shipper for deliveries to Union
4 and redeliveries by Union shall be the same delivery of gas by Union either to Shipper or a Shipper's Account with Union.

5
6 k) The parties hereto recognize that with respect to Section 5.01 of the Contract, on any day, receipts of gas by Union
7 and deliveries of gas by Union may not always be exactly equal, but each party shall cooperate with the other in order to balance
8 as nearly as possible the quantities transacted on a daily basis, and any imbalances arising shall be allocated to Shipper's
9 Limited Balancing Agreement or the Balancing Service pursuant to Shipper's Interruptible Service HUB Contract, and shall be
10 subject to the respective terms and charges contained therein, and shall be resolved in a timely manner.

11
12

1 **SCHEDULE D - RATE M12 POINTS**

2
3 The following defines each Receipt Point and/or Delivery Point:
4

5
6 **DAWN (TCPL):** At the junction of Union's and TCPL's facilities, at or adjacent to Dawn (Facilities).
7

8 **DAWN (FACILITIES):** Union's Compressor Station site situated in the northwest corner of Lot Twenty-Five (25),
9 Concession II, in the Township of Dawn-Euphemia, in the County of Lambton. This point
10 is applicable for quantities of gas that have been previously transported or stored under
11 other contracts that Shipper may have in place with Union.
12

13 **DAWN (TECUMSEH):** At the junction of Union's and Tecumseh Gas Storage's, a division of Enbridge Gas
14 Distribution Inc. ("Enbridge") facilities, at or adjacent to Dawn (Facilities).
15

16 **DAWN (VECTOR):** At the junction of Union's and Vector pipeline Limited Partnership ("Vector") facilities, at
17 or adjacent to Dawn (Facilities).
18

19 **PARKWAY (TCPL):** At the junction of Union's and TCPL's facilities, at or adjacent to Union's facilities situated
20 in the Part Lot 9 and Part Lot 10, Concession IX, New Survey, Town of Milton, Regional
21 Municipality of Halton.
22

23 **KIRKWALL:** At the junction of Union's and TCPL's facilities at or adjacent to Union's facilities situated
24 in Part Lot Twenty-Five (25), Concession 7, Town of Flamborough.
25

26 **PARKWAY (CONSUMERS):** At the junction of the facilities of Union and Enbridge, at or adjacent to Union's facilities
27 situated in Part Lot 9 and Part Lot 10, Concession IX, New Survey, Town of Milton,
28 Regional Municipality of Halton.
29

30 **LISGAR:** At the junction of the facilities of Union and Enbridge situated at 6620 Winston Churchill
31 Boulevard, City of Mississauga
32
33

1 **APPENDIX L – C1 RATE**

2 **STORAGE AND CROSS FRANCHISE TRANSPORTATION RATES**

3 (A) Applicability

4
5 To a Shipper who enters into a Contract with Union for delivery by Shipper of gas to Union at one of Union's points listed
6 below for redelivery by Union to Shipper at one of Union's points or to storage.
7

<u>Applicable Points</u>	(1)	(2)
	Ojibway	WDA
	St. Clair	NDA
	Dawn*	SSMDA
	Parkway	SWDA
	Kirkwall	CDA
	Bluewater	EDA

*includes Dawn (TCPL), Dawn Facilities, Dawn (Tecumseh) and Dawn (Vector)

8
9
10 (B) Services

11 Storage Service under this rate schedule is:

- 12
13
14 i) a combined space and deliverability service for storage, OR
15 ii) firm deliverability, OR
16 iii) a component of a balancing service offered by Union.

17
18 Transportation Service under this rate schedule is transportation on Union's pipeline facilities between any two Points as
19 specified in Section (A), column 1.
20

21 (C) Rates (1)

22
23 The identified rates (excluding gas supply charges, if applicable) represent maximum prices for service. These rates
24 may change periodically. Multi-year prices may also be negotiated, which may be higher than the identified rates.
25

26 Storage Service:

	Rate for gas injected and withdrawn from <u>Storage (2)</u> Rate/GJ	If Union supplies fuel Commodity <u>Charge</u> Rate/GJ	<u>Commodity Charges</u>	
			<u>If Shipper supplies fuel</u>	
			<u>Fuel</u> <u>Ratio</u> %	<u>Commodity</u> <u>Charge</u> Rate/GJ
<u>Long Term, Short Term and Off Peak (3)</u>				
a) Combined Storage Space and Interruptible Deliverability Maximum	\$3.00	\$0.056	0.63%	\$0.004
b) Firm Deliverability Maximum	\$3.00	\$0.056	0.63%	\$0.004
<u>Dehydration (4)</u>				
a) Dehydration		\$0.001		\$0.001

28
29

1 (C) Rates (Cont'd)

2
3 Notes:

- 4
5 (1) In negotiating the rate to be charged for storage services, the matters that are to be considered include:
6
7 i) The minimum amount of storage service to which a Shipper is willing to commit,
8 ii) Whether the Shipper is contracting for firm or interruptible service during Union's peak or non-peak periods,
9 iii) Utilization of facilities,
10 iv) Competition, and
11 v) Term.
12
13 (2) This rate may be applied in any combination of monthly demand charge, injection and/or withdrawal charge, take
14 or pay charge and fuel in kind. The resulting revenue divided by the space quantity under contract must yield an
15 average rate that falls within the range.
16
17 (3) Long term storage services are services in excess of 2 years, short term storage services are 2 years or less in
18 duration.
19
20 (4) Dehydration charges are applicable to all quantities withdrawn from storage on any day that Union's Dawn
21 dehydration unit is in operation.
22

23 Transportation Service:

	Monthly Demand Charge (applied to daily contract demand) Rate/GJ	Commodity Charges			
		If Union supplies fuel Commodity Charge		If Shipper supplies fuel Fuel Ratio	
		Apr. 1-Oct. 31 Rate/GJ	Nov. 1-Mar. 31 Rate/GJ	Apr. 1-Oct. 31 %	Nov. 1-Mar. 31 %
a) Firm Transportation					
Between:					
St. Clair & Dawn	\$1.049	\$0.036	\$0.036	0.431%	0.431%
Ojibway & Dawn	\$1.049	\$0.095	\$0.095	1.151%	1.151%
Bluewater & Dawn	\$1.049	\$0.036	\$0.036	0.431%	0.431%
From:					
Parkway to Kirkwall	\$0.569	\$0.033	\$0.033	0.395%	0.395%
Parkway to Dawn	\$0.569	\$0.033	\$0.033	0.395%	0.395%
Dawn to Kirkwall	\$1.968	\$0.081	\$0.081	0.983%	0.983%
Dawn to Parkway	\$2.334	\$0.081	\$0.081	0.983%	0.983%
b) Interruptible and Short Term (1 year or less) Firm Transportation:					
Maximum		\$75.000	\$75.00		
c) Interruptible Transportation between two points with Dawn*				0.329%	0.329%

*includes Dawn (TCPL), Dawn Facilities, Dawn (Tecumseh) and Dawn (Vector)

1 (C) Rates (Cont'd)

2
3 Authorized Overrun:

4
5 The following Overrun rates are applied to any quantities stored or transported in excess of the Contract parameters.
6 Overrun will be authorized at Union's sole discretion.
7

	Rate for gas injected and withdrawn from storage Rate/GJ	If Union supplies fuel Commodity Charge Rate/GJ	Commodity Charges		Commodity Charge Rate/GJ
			If Shipper supplies fuel Fuel Ratio		
			Apr.1-Oct.31 %	Nov.1-Mar.31 %	
a) Storage Space - Maximum	\$3.00				
Injection/Withdrawal - Maximum	\$3.00	\$0.124	1.05%	1.05%	\$0.038

	Apr.1-Oct.31 Rate/GJ	Nov.1-Mar.31 Rate/GJ	Commodity Charges		Commodity Charge Rate/GJ
			If Shipper supplies fuel Fuel Ratio		
			Apr.1-Oct.31 %	Nov.1-Mar.31 %	
b) Firm Transportation					
Between:					
St. Clair & Dawn	\$0.070	\$0.070	0.431%	0.431%	\$0.034
Ojibway & Dawn	\$0.129	\$0.129	1.151%	1.151%	\$0.034
Bluewater & Dawn	\$0.070	\$0.070	0.431%	0.431%	\$0.034
From:					
Parkway to Kirkwall	\$0.051	\$0.051	0.395%	0.395%	\$0.018
Parkway to Dawn	\$0.051	\$0.051	0.395%	0.395%	\$0.018
Dawn to Kirkwall	\$0.146	\$0.146	0.983%	0.983%	\$0.065
Dawn to Parkway	\$0.158	\$0.158	0.983%	0.983%	\$0.077
c) Dehydration	\$0.001	\$0.001	n/a	n/a	\$0.001

8
9
10
11 Authorized overrun for short-term firm transportation is available at negotiated rates.

12
13 Unauthorized Overrun:

14
15 Overrun of Firm Transportation

16
17 The Unauthorized Overrun rate shall be the higher of the reported daily spot price of gas at either, Dawn, Parkway,
18 Niagara or Iroquois in the month of or the month following the month in which the overrun occurred plus 25% for all
19 usage on any day in excess of 102% of Union's contractual obligation.

20
21 Overrun of Maximum Storage Balance

22
23 The rate payable shall be \$60/GJ on the Excess Storage Balance during the period of August 1 through to and
24 including December 15. The rate payable shall be \$6/GJ on the Excess Storage Balance during the period of
25 December 16 through to and including July 31.

1 For any Extension Period, the rate payable shall be \$0.056/GJ times the quantity in the Excess Storage Balance as of
2 the date of such extension.

3
4 Union, during any Extension Period, may upon forty-eight (48) hours verbal notice to Shipper (to be followed in writing)
5 take possession of Shipper's gas in storage (which shall be immediately forfeited to Union without further recourse).

6
7 These rates will be charged in addition to the normal injection and withdrawal charges.

8
9 Drafted Storage Balance

10
11 The rate payable shall be \$60/GJ on the Drafted Storage Balance during the period of February 1 through to and
12 including April 30.

13
14 The rate payable shall be \$6/GJ on the Drafted Storage Balance during the period of May 1 through to and including
15 January 31.

16
17 For any Extension Period, the rate payable shall be \$0.056/GJ times the quantity in the Drafted Storage Balance as of
18 the date of such extension.

19
20 Union, during any Extension Period, may upon forty-eight (48) hours verbal notice to Shipper (to be followed in writing),
21 replace the outstanding gas at Shipper's expense (which will include all costs related to replacing such gas, plus a
22 charge equal to 25% of the incremental cost of the gas purchased for each unit so replaced).

23
24 These rates will be charged in addition to the normal injection and withdrawal charges.

25
26 Overrun of Firm Injections

27
28 The rate payable shall be \$60/GJ on the injections in excess of the Injection Demand during the period of August 1
29 through to and including December 15. The rate payable shall be \$6/GJ on the injections in excess of the Injection
30 Demand during the period of December 16 through to and including July 31.

31
32 Overrun of Firm Withdrawals

33
34 The rate payable shall be \$60/GJ on the injections in excess of the Withdrawal Demand during the period of February
35 1 through to and including April 30. The rate payable shall be \$6/GJ on the withdrawals in excess of the Withdrawal
36 Demand during the period of May 1 through to and including January 31.

37
38 (D) Terms of Service

39
40 General Terms and Conditions applicable to this rate schedule shall be in accordance with the attached Schedule "A".

41
42 (E) Nominations

43
44 Nominations under this rate schedule shall be in accordance with the attached Schedule "B".

45
46 (F) Receipt and Delivery Points

47
48 Receipt and Delivery Points under this rate schedule shall be in accordance with the attached Schedule "C".

1 **APPENDIX L – RATE C1**

2 **SCHEDULE A - GENERAL TERMS & CONDITIONS**

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1 I. DEFINITIONS
2

3 Except where the context expressly requires or states another meaning, the following terms, when used in these General Terms
4 & Conditions and in any contract into which these General Terms & Conditions are incorporated, shall be construed to have the
5 following meanings:
6

- 7 1. "Contract" shall refer to the contract to which these General Terms & Conditions shall apply, and into which they are
8 incorporated;
9
- 10 2. "cubic metre" shall mean the volume of gas which occupies one cubic metre when such gas is at a temperature of 15
11 degrees Celsius, and at a pressure of 101.325 kilopascals absolute;
12
- 13 3. "Daily Quantity" shall mean the Injection Demand and/or Withdrawal Demand, as the case may be on any day, and as
14 defined in Section 5.01 of the Contract, shall be known as the "Daily Quantity".
15
- 16 4. "day" shall mean a period of twenty-four (24) consecutive hours beginning at 9:00 a.m. Central Standard time. The
17 reference date for any day shall be the calendar date upon which the twenty-four (24) hour period shall commence;
18
- 19 5. "delivery" shall mean any gas that is delivered by Union into Shipper's possession, or to the possession of Shipper's
20 agent;
21
- 22 6. "firm" shall mean service not subject to curtailment or interruption except under Articles XI and XII of this Schedule "A";
23
- 24 7. "gas" shall mean gas as defined in the Ontario Energy Board Act, 1998, S.O. 1998, c.15, Sch. B, as amended,
25 supplemented or re-enacted from time to time;
26
- 27 8. "gross heating value" shall mean the total heat expressed in megajoules per cubic metre (MJ/m³) produced by the
28 complete combustion at constant pressure of one (1) cubic metre of gas with air, with the gas free of water vapour and
29 the temperature of the gas, air and products of combustion at standard temperature and all water formed by the
30 combustion reaction condensed to the liquid state;
31
- 32 9. "interruptible service" shall mean service subject to curtailment or interruption, after notice, at any time;
33
- 34 10. "Interconnecting Pipeline" shall mean a pipeline that directly connects to the Union pipeline system;
35
- 36 11. "joule" (J) shall mean the work done when the point of application of a force of one (1) newton is displaced a distance
37 of one (1) metre in the direction of the force. The term "megajoule" (MJ) shall mean 1,000,000 joules. The term
38 "gigajoule" (GJ) shall mean 1,000,000,000 joules;
39
- 40 12. "limited interruptible service" shall mean gas service subject to interruption or curtailment on a limited number of days
41 as specified in the Contract;
42
- 43 13. "m³" shall mean cubic metre of gas and "10³m³" shall mean 1,000 cubic metres of gas;
44
- 45 14. "Maximum Storage Balance" shall mean the quantity of storage space held available by Union for Shipper's utilization;
46
- 47 15. "month" shall mean the period beginning at 9:00 a.m. Central Standard time on the first day of a calendar month and
48 ending at 9:00 a.m. Central Standard time on the first day of the following calendar month;
49
- 50 16. "OEB" means the Ontario Energy Board;
51
- 52 17. "pascal" (Pa) shall mean the pressure produced when a force of one (1) newton is applied to an area of one (1) square
53 metre. The term "kilopascal" (kPa) shall mean 1,000 pascals;
54
- 55 18. "receipt" shall mean any gas that is delivered into Union's possession, or the possession of Union's agent;
56

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1 19. "Services": shall include Transportation Services, Storage Services, Balancing Services, Exchange Services, Loan
2 Services, Name Change Services, Parking Services, and Redirect Services as defined in the Contract;

3
4 20. "Shipper", shall have the meaning as defined in the Contract and shall also include Shipper's agent(s);

5
6 21. "TCPL" means TransCanada Pipelines Limited;

7
8
9
10
11 II. GAS QUALITY

12
13 1. Natural Gas: The minimum gross heating value of the gas delivered to/by Union hereunder, shall be thirty-six (36)
14 megajoules per cubic metre. The maximum gross heating value of the gas delivered to/by Union hereunder shall be
15 forty point two (40.2) megajoules per cubic metre. The gas to be delivered hereunder to Union may be a commingled
16 supply from Shipper's natural gas sources of supply. The gas to be delivered by Union may be a commingled supply
17 from Union's sources of gas supply; provided, however, that helium, natural gasoline, butane, propane and other
18 hydrocarbons except methane may be removed prior to delivery to Shipper. Further, Union may subject, or permit the
19 subjection of, the gas to compression, dehydration, cooling, cleaning and other processes.

20
21 2. Freedom from objectionable matter: The gas to be delivered to/by Union hereunder,

22
23 a. shall be commercially free from sand, dust, gums, crude oils, lubricating oils, liquids, chemicals or
24 compounds used in the production, treatment, compression or dehydration of the gas or any other
25 objectionable substance in sufficient quantity so as to render the gas toxic, unmerchantable or cause injury to
26 or interference with the proper operation of the lines, regulators, meters or other appliances through which it
27 flows,

28
29 b. shall not contain more than seven (7) milligrams of hydrogen sulphide per cubic metre of gas nor more than
30 four hundred and sixty (460) milligrams of total sulphur per cubic metre of gas as determined by standard
31 methods of testing,

32
33 c. shall not contain more than five (5) milligrams of mercaptan sulphur per cubic metre of gas,

34
35 d. shall not contain more than two point zero (2.0) molar percent by volume of carbon dioxide in the gas,

36
37 e. shall not contain more than zero point five (0.5) molar percent by volume of carbon monoxide in the gas,

38
39 f. shall not contain more than zero point four (0.4) molar percent by volume of oxygen in the gas,

40
41 g. shall not contain more than four point zero (4.0) molar percent by volume of hydrogen in the gas,

42
43 h. shall not contain more than sixty-five (65) milligrams of water vapour per cubic metre of the gas,

44
45 i. shall not have a hydrocarbon dewpoint exceeding minus ten (-10) degrees Celsius at five thousand-five
46 hundred (5500) kPa pressure,

47
48 j. shall not contain less than one point zero (1.0) molar percent by volume of ethane in the gas,

49
50 k. shall at all times be interchangeable with other pipeline gas such that the yellow tipping, flashback and lifting
51 factors shall be within the range permitted for gas according to AGA Research Bulletin No. 36.

52
53 l. Despite the foregoing, Union will also accept gas of a quality as set out in any other Interconnecting
54 Pipeline's general terms and conditions, provided that all Interconnecting Pipelines similarly accept such
55 quality of gas.
56

- 1 3. In addition to any other right or remedy of a party, each party shall be entitled to refuse to accept delivery of any gas
2 which does not conform to any of the specifications set out in Section 2.
3
4 4. For Exchange Services Only: The quality of the gas to be delivered by Union hereunder at an Exchange Point shall be
5 in accordance with the quality standards of the applicable upstream or downstream transporter's tariff.
6
7
8
9

10 III. MEASUREMENTS
11

- 12 1. Storage, Transportation, and/or Sales Unit: ("The Unit") The Unit of the gas delivered to Union shall be a megajoule or
13 a gigajoule. The unit of gas transported or stored by Union shall be a megajoule or a gigajoule. The unit of gas
14 delivered by Union shall be a megajoule, a gigajoule, a cubic metre (m³) or one thousand cubic metres (10³m³) at
15 Union's discretion.
16
17 2. Determination of Volume and Energy:
18
19 a. The volume and energy amounts determined under the Contract shall be determined in accordance with the
20 Electricity and Gas Inspection Act (Canada), assented to 31 March, 1982 and the Electricity and Gas
21 Inspection Regulations, P.C. 1986-116, 16 January, 1986, and any documents issued under the authority of
22 the Act and Regulations and any amendments thereto.
23
24 b. The supercompressibility factor shall be determined in accordance with either the "Manual for Determination
25 of Supercompressibility Factors for Natural Gas" (PAR Project NX-19) published in 1962 or with American
26 Gas Association Transmission Measurement Committee Report No. 8, Nov. 1992, at Union's discretion, all
27 as amended from time to time.
28
29 c. The volume and/or energy of the gas delivered to/by Union hereunder shall be determined by the
30 measurement equipment designated in Article VII - Measuring Equipment, of this schedule.
31
32

33 IV. RECEIPT POINT, DELIVERY POINT AND DELIVERY PRESSURES
34

- 35 1. Unless otherwise specified in the Contract, the point or points of receipt for all gas to be covered hereunder shall be on
36 the outlet side of the measuring stations located at or near the point or points of connection specified in the Contract,
37 where Union takes possession of the gas
38
39 2. Unless otherwise specified in the Contract, the point or points of delivery for all gas to be covered hereunder shall be
40 on the outlet side of the measuring stations located at or near the point or points of connection as specified in the
41 Contract where Shipper takes possession of the gas.
42
43 3. Under no circumstances shall Union be obligated to receive or deliver gas hereunder at pressures exceeding the
44 maximum allowable operating pressures prescribed under any applicable governmental regulations; nor shall Union be
45 required to make any physical deliveries or to accept any physical receipts which its existing facilities cannot
46 accommodate.
47

48 V. POSSESSION OF AND RESPONSIBILITY FOR GAS
49

- 50 1. Possession of Gas:
51
52 a. Union accepts no responsibility for any gas prior to such gas being delivered to Union at the Receipt Point (or
53 Transfer Point as defined in the Interruptible Service Hub Contract) and after its delivery by Union at the
54 Delivery Point (or Exchange Point or Transfer Point, both as defined in the Interruptible Service Hub
55 Contract). As between the parties hereto, Union shall be deemed to be in control and possession of and

1 responsible for all such gas from the time that such gas enters Union's system until such gas is delivered to
2 Shipper.
3

- 4 b. Shipper agrees that Union is not a common carrier and is not an insurer of Shipper's gas, and that Union
5 shall not be liable to Shipper or any third party for loss of gas in Union's possession, except to the extent
6 such loss is caused by Union's negligence or wilful misconduct.
7

- 8 3. Title to Gas: Shipper represents and warrants to Union that Shipper shall have good and marketable title to, or legal
9 authority to deliver to Union, all gas delivered to Union hereunder. Furthermore, Shipper hereby agrees to indemnify
10 and save Union harmless from all suits, actions, debts, accounts, damages, costs, losses and expenses arising from or
11 out of claims of any or all third parties to such gas or on account of royalties, taxes, license fees, or other charges
12 thereon.
13

- 14 3. Commingling: Union shall have the right to commingle the quantity of gas referenced herein with gas owned by Union
15 or gas being stored and/or transported by Union for third parties.
16

17
18 VI. FACILITIES ON SHIPPER'S PROPERTY
19

20 Except under those conditions where Union is delivering to TCPL for TCPL or Shipper at Union's Parkway point of delivery, or to
21 an Interconnecting Pipeline, or where otherwise specified in the Contract, the following will apply:
22

- 23 1. Construction and Maintenance: Union, at its own expense may construct, maintain and operate on Shipper's property
24 at the delivery point a measuring station properly equipped with a meter or meters and any other necessary measuring
25 equipment for properly measuring the gas redelivered under the Contract. Shipper will grant to Union a lease and/or
26 rights-of-way over property of Shipper as required by Union to install such facilities and to connect same to Union's
27 pipeline.
28
- 29 2. Entry: Union, its servants, agents and each of them may at any reasonable time on notice (except in cases of
30 emergency) to Shipper or his duly authorized representative enter Shipper's property for the purpose of constructing,
31 maintaining, removing, operating and/or repairing station equipment.
32
- 33 3. Property: The said station and equipment will be and remain the property of Union notwithstanding it is constructed on
34 and attached to the realty of Shipper, and Union may at its own expense remove it upon termination of the Contract
35 and will do so if so requested by Shipper.
36
37

38 VII. MEASURING EQUIPMENT
39

- 40 1. Metering by Union: Union will install and operate meters and related equipment as required and in accordance with
41 the Act and Regulations referenced in Article III subparagraph 2.a.
42
- 43 2. Metering by Others: In the event that all or any gas delivered to/by Union hereunder is measured by a meter that is
44 owned and operated by an Interconnecting Pipeline, then Union and Shipper agree to accept that metering for the
45 purpose of determining the volume and energy of gas delivered to/by Union on behalf of the Shipper. The standard of
46 measurement and tests for the gas delivered to/by Union hereunder shall be in accordance with the general terms and
47 conditions as incorporated in that Interconnecting Pipeline gas tariff as approved by their regulatory body.
48
- 49 3. Measurement of Interconnecting Pipelines: Union, shall cause Shipper to obtain measurement of the total quantity of
50 gas to be received by Union hereunder from the Interconnecting Pipeline. Such measurement shall be done in
51 accordance with established practices between Union and the Interconnecting Pipeline.
52
- 53 4. Measurement Error of Interconnecting Pipelines: In the event of an error in metering or a meter failure, (such error or
54 failure being determined through check measurement by Union or any other available method), then Shipper shall
55 enforce its rights with the Interconnecting Pipeline(s) to remedy such error or failure including enforcing any inspection
56 and/or verification rights and procedures.

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- 1
2 5. Check Measuring Equipment: Shipper may install, maintain and operate, at the redelivery point, at its own expense,
3 such check measuring equipment as desired, provided that such equipment shall be so installed as not to interfere with
4 the operation of Union's measuring equipment at or near the delivery point, and shall be installed, maintained and
5 operated in conformity with the same standards and specifications applicable to Union's metering facilities.
6
7 6. Rights of Parties: The measuring equipment installed by either party, together with any building erected by it for such
8 equipment, shall be and remain its property. However, Union and Shipper shall have the right to have representatives
9 present at the time of any installing, reading, cleaning, changing, repairing, inspecting, testing, calibrating, or adjusting
10 done in connection with the other's measuring equipment used in measuring or checking the measurement of
11 deliveries of gas to/by Union under the Contract. Either party will give the other party reasonable notice of its intention
12 to carry out the acts herein specified. The records from such measuring equipment shall remain the property of their
13 owner, but upon request each will submit to the other its records and charts, together with calculations therefrom, for
14 inspection and verification, subject to return within ten days after receipt thereof.
15
16 7. Calibration and Test of Measuring Equipment: The accuracy of Union's measuring equipment shall be verified by
17 Union at reasonable intervals, and if requested, in the presence of representatives of Shipper, but Union shall not be
18 required to verify the accuracy of such equipment more frequently than once in any thirty (30) day period. In the event
19 either party shall notify the other that it desires a special test of any measuring equipment, the parties shall co-operate
20 to secure a prompt verification of the accuracy of such equipment. The expense of any such special test, if called for
21 by Shipper, shall be borne by Shipper if the measuring equipment tested is found to be in error by not more than two
22 per cent (2%). If, upon test, any measuring equipment is found to be in error by not more than two per cent (2%),
23 previous recordings of such equipment shall be considered accurate in computing redeliveries of gas, but such
24 equipment shall be adjusted at once to record as near to absolute accuracy as possible. If the test conducted shows a
25 percentage of inaccuracy greater than two percent (2%), the financial adjustment, if any, shall be calculated in
26 accordance with the Electricity and Gas Inspection Act (1982) and regulations thereunder, as may be amended from
27 time to time and in accordance with any successor statutes and regulations.
28
29 8. Preservation of Metering Records: Union and Shipper shall each preserve for a period of at least six (6) years all test
30 data, and other relevant records.
31
32

33 VIII. BILLING
34

- 35 1. Monthly Billing Date: Union shall render bills on or before the 10th day of each month for all services furnished during
36 the preceding month. Such charges may be based on estimated quantities, if actual quantities are unavailable in time
37 to prepare the billing. Union shall provide, in a succeeding month's billing, an adjustment based on any difference
38 between actual quantities and estimated quantities, without any interest charge. If presentation of a bill to Shipper is
39 delayed after the 10th day of the month, then the time of payment shall be extended accordingly, unless Shipper is
40 responsible for such delay.
41
42 2. Right of Examination: Both Union and Shipper shall have the right to examine at any reasonable time the books,
43 records and charts of the other to the extent necessary to verify the accuracy of any statement, chart or computation
44 made under or pursuant to the provisions of the Contract.
45
46 3. Accounting for Services: All quantities of gas delivered to/by Union shall be accounted for on a daily basis.
47
48
49

50 IX. PAYMENTS
51

- 52 1. Monthly payments: Shipper shall, unless otherwise directed by Union, pay directly into Union's account at the
53 Canadian Imperial Bank of Commerce, Chatham, Ontario by electronic funds transfer to transit 010 00282, account 00-
54 3301 if paying in Canadian funds; and, account 02-6717 if paying in US funds, so that Union shall receive payment
55 from Shipper, on or before the twentieth (20th) day of each month, payment on the bill provided by Union. If the

1 payment date is not a business day, then payment must be received in Union's account on the first business day
2 preceding the twentieth (20th) day of the month.
3

4 2. Remedies for non-payment: Should Shipper fail to pay all of the amount of any bill as herein provided when such
5 amount is due,
6

7 a. Shipper shall pay to Union interest on the unpaid portion of the bill accruing at a rate per annum equal to the
8 minimum commercial lending rate of Union's principal banker in effect from time to time from the due date until the
9 date of payment.

10 b. If such failure to pay continues for thirty (30) days after payment is due, Union, in addition to any other remedy it
11 may have under the Contract, may suspend service(s) until such amount is paid.
12

13 Notwithstanding such suspension, all demand charges shall continue to accrue hereunder as if such suspension were
14 not in place.
15

16 If Shipper in good faith disputes the amount of any such bill or part thereof Shipper shall pay to Union such amounts as
17 it concedes to be correct. At any time thereafter, within twenty (20) days of a demand made by Union, Shipper shall
18 furnish financial assurances satisfactory to Union, guaranteeing payment to Union of the amount ultimately found due
19 upon such bill after a final determination. Such a final determination may be reached either by agreement, arbitration
20 decision or judgement of the courts, as may be the case. Union shall not be entitled to suspend services(s) because of
21 such non-payment unless and until default occurs in the conditions of such financial assurances or default occurs in
22 payment of any other amount due to Union hereunder.
23

24 Notwithstanding the foregoing paragraphs, Shipper is not relieved from the obligation to continue its deliveries of gas to
25 Union under the terms of any agreement, where Shipper has contracted to deliver specified quantities of gas to Union.
26

27 3. Set Off: If either party shall, at any time, be in arrears under any of its payment obligations to the other party, under the
28 Contract, or otherwise indebted to the other party, then the party not in arrears shall be entitled to reduce any amount
29 payable by it to the party in arrears under the Contract, or any other contract, by an amount equal to the amount of
30 such arrears or other indebtedness to the other party. In addition to the foregoing remedy, Union may, upon forty-eight
31 (48) hours verbal notice, to be followed by written notice, take possession of any or all of Shipper's gas under the
32 Contract and any enhancements to the Contract, which shall be deemed to have been assigned to Union, to reduce
33 such arrears or other indebtedness to Union.
34

35 4. Billing Adjustments: If it shall be found that at any time or times Shipper has been overcharged or undercharged in any
36 form whatsoever under the provisions of the Contract and Shipper shall have actually paid the bills containing such
37 overcharge or undercharge, Union shall refund the amount of any such overcharge and interest shall accrue from and
38 including the first day of such overcharge as paid to the date of refund and shall be calculated but not compounded at
39 a rate per annum determined each day during the calculation period to be equal to the minimum commercial lending
40 rate of Union's principal banker, and the Shipper shall pay the amount of any such undercharge, but without interest.
41 In the event Union renders a bill to Shipper based upon measurement estimates, the required adjustment to reflect
42 actual measurement shall be made on the bill next following the determination of such actual measurement, without
43 any charge of interest. In the event an error is discovered in the amount billed in any statement rendered by Union,
44 such error shall be adjusted by Union. Such overcharge, undercharge or error shall be adjusted by Union on the bill
45 next following its determination (where the term "bill" next following shall mean a bill rendered at least fourteen (14)
46 days after the day of its determination), provided that claim therefore shall have been made within six (6) years from
47 the date of the incorrect billing. In the event any refund is issued with Shipper's gas bill, the aforesaid date of refund
48 shall be deemed to be the date of the issue of bill.
49

50 5. Final Determination: For the purpose of completing a final determination of the actual quantities of gas handled in any
51 of the Services to Shipper, the parties shall have the right to amend their statements for a period equal to the time
52 during which the Interconnecting Pipeline retains the right to amend their statements, which period shall not exceed
53 three (3) years from the date of termination of the Contract.
54
55
56

1
2
3 X. ARBITRATION
4

5 If and when any dispute, difference or question shall arise between the parties hereto touching the Contract or anything herein
6 contained, or the construction hereof, or the rights, duties or liabilities of the parties in relation to any matter hereunder, the
7 matter in dispute shall be submitted and referred to arbitration within ten (10) days after written request of either party. Upon
8 such request each party shall appoint an arbitrator, and the two so appointed shall appoint a third. A majority decision of the
9 arbitrators shall be final and binding upon both parties. In all other respects the provisions of the Arbitration Act of the Province
10 of Ontario, or any Act passed in amendment thereof or substitution therefor, shall apply to each such submission. Operations
11 under the Contract shall continue, without prejudice, during any such arbitration and the costs attributable to such arbitration
12 shall be shared equally by the parties hereto.
13

14
15 XI. FORCE MAJEURE
16

- 17 1. The term "force majeure" as used herein shall mean acts of God, strikes, lockouts or any other industrial disturbance,
18 acts of the public enemy, sabotage, wars, blockades, insurrections, riots, epidemics, landslides, lightening,
19 earthquakes, fires, storms, floods, washouts, arrests and restraints of governments and people, civil disturbances,
20 explosions, breakage or accident to machinery or lines of pipe, freezing of wells or lines of pipe, inability to obtain
21 materials, supplies, permits or labour, any laws, orders, rules, regulations, acts or restraints of any governmental body
22 or authority (civil or military), any act or omission that is excused by any event or occurrence of the character herein
23 defined as constituting force majeure, any act or omission by parties not controlled by the party having the difficulty and
24 any other similar cases not within the control of the party claiming suspension and which by the exercise of due
25 diligence such party is unable to prevent or overcome.
26
- 27 2. In the event that either the Shipper or Union is rendered unable, in whole or in part, by force majeure, to perform or
28 comply with any obligation or condition of the Contract, such party shall give notice and full particulars of such force
29 majeure in writing delivered by hand, fax or other direct written electronic means to the other party as soon as possible
30 after the occurrence of the cause relied on and subject to the provision of this Article.
31
- 32 3. Neither party shall be entitled to the benefit of the provisions of force majeure hereunder if any or all of the following
33 circumstances prevail: the failure resulting in a condition of force majeure was caused by the negligence of the party
34 claiming suspension; the failure was caused by the party claiming suspension where such party failed to remedy the
35 condition by making all reasonable efforts (short of litigation, if such remedy would require litigation); the party claiming
36 suspension failed to resume the performance of such condition obligations with reasonable dispatch; the failure was
37 caused by lack of funds; the party claiming suspension did not as soon as possible after determining or within a period
38 within which it should acting reasonably have determined that the occurrence was in the nature of force majeure and
39 would affect its ability to observe or perform any of its conditions or obligations under the Contract give to the other
40 party the notice required hereunder.
41
- 42 4. The party claiming suspension shall likewise give notice as soon as possible after the force majeure condition is
43 remedied, to the extent that the same has been remedied, and that such party has resumed or is then in a position to
44 resume the performance of the obligations and conditions of the Contract.
45
- 46 5. An event of force majeure on Union's system will excuse the failure to deliver gas by Union or the failure to accept gas
47 by Union hereunder, and both parties shall be excused from performance of their obligations hereunder and in the
48 Contract, except for payment obligations, to the extent of and for the duration of the force majeure.
49
- 50 6. Upstream or Downstream Force Majeure: An event of force majeure upstream or downstream of Union's system shall
51 not relieve Shipper of any payment obligations.
52
- 53 7. a. Delay of Firm Transportation Services: Despite Section 5 herein, if Union is prevented, by reason of
54 an event of force majeure on Union's system from delivering gas on the day or days upon which Union has
55 accepted gas from Shipper, Union shall thereafter make all reasonable efforts to deliver such quantities as
56 soon as practicable and on such day or days as are agreed to by Shipper and Union. If Union accepts such

1 gas on this basis, Shipper shall not receive any demand charge relief as contemplated under Section 8
2 herein.

3
4 b. Delay of Firm Storage Services: Despite Section 5 herein, if Union is prevented, by reason of an
5 event of force majeure on Union's system from receiving or delivering Shipper's gas, Union shall thereafter
6 make all reasonable efforts to receive or deliver such quantities as soon as practicable and on such day or
7 days as are agreed to by Shipper and Union. If Union delivers or accepts such gas on this basis, Shipper
8 shall not receive any demand charge relief as contemplated under Section 8 herein.
9

10 8. a. Demand Charge Relief for Transportation Services: If on any day Union fails to accept gas from
11 Shipper at the Receipt Point by reason of an event of force majeure on Union's system and fails to deliver the
12 quantity of gas nominated hereunder by Shipper up to the Contract Demand, then for that day the monthly
13 demand charge shall be reduced by an amount equal to the applicable Daily Demand Rate, as defined in this
14 paragraph, multiplied by the difference between the quantity of gas actually delivered by Union during such
15 day and the quantity of gas which Shipper in good faith nominated on such day. The term "Daily Demand
16 Rate" shall mean the monthly demand charge or equivalent (as stipulated in Article VIII of the Contract)
17 divided by the number of days in the month for which such rate is being calculated.
18

19 b. Demand Charge Relief for Storage Services: If on any day Union fails to deliver the quantity of gas
20 nominated (up to the Withdrawal Demand) by reason of an event of force majeure on Union's system, then
21 for that day Union shall credit to Shipper's bill an amount equal to the applicable Daily Demand Rate as
22 defined in this paragraph, multiplied by the difference between the quantity of gas actually delivered to
23 Shipper during such day and the quantity of gas which Shipper in good faith nominated on such day. The
24 term "Daily Demand Rate" shall mean the monthly demand charge or equivalent (as stipulated in Article VIII
25 of the Contract) divided by the number of days in the month for which such rate is being calculated.
26

27 9. If on any day, due to the occurrence of an event of force majeure as outlined above, Union is unable to receive or
28 deliver the quantities of gas nominated on that day, Union will allocate the available capacity to firm shippers in
29 proportion to those quantities which were nominated in good faith for that day by Shipper up to the Contract Demand
30 for firm Transportation Services and up to the firm Injection Demand or firm Withdrawal Demand for Storage Services.
31 For greater clarity, the capacity that Union will allocate to each firm Shipper who has nominated for the service affected
32 by an event of force majeure will be a percentage of the firm service nominated by that firm Shipper for that day divided
33 by the sum of all firm Shippers' nominations multiplied by the total capacity available.
34
35

36 XII. DEFAULT AND TERMINATION

37
38 In case of the breach or non-observance or non-performance on the part of either party hereto of any covenant, proviso,
39 condition, restriction or stipulation contained in the Contract (but not including herein failure to take or make delivery in whole or
40 in part of the gas delivered to/by Union hereunder occasioned by any of the reasons provided for in Article XI hereof) which has
41 not been waived by the other party, then and in every such case and as often as the same may happen, the Non-defaulting party
42 may give written notice to the Defaulting party requiring it to remedy such default and in the event of the Defaulting party failing to
43 remedy the same within a period of thirty (30) days from receipt of such notice, the Non-defaulting party may at its sole option
44 declare the Contract to be terminated and thereupon the Contract shall be terminated and be null and void for all purposes other
45 than and except as to any liability of the parties under the same incurred before and subsisting as of termination. The right
46 hereby conferred upon each party shall be in addition to, and not in derogation of or in substitution for, any other right or remedy
47 which the parties respectively at law or in equity shall or may possess.
48

49 XIII. MODIFICATION

50
51
52 Without limiting the ability of Union to amend the C1 Rate Schedule with the approval of the OEB, no amendment or modification
53 of the Contract shall be effective unless the same shall be in writing and signed by each of the Shipper and Union. No waiver of
54 any provision of the Contract shall be effective unless the same shall be in writing and signed by the party entitled to the benefit
55 of such provision and then such waiver shall be effective only in the specific instance and for the specified purpose for which it

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1 was given. No failure on the part of Shipper or Union to exercise, and no course of dealing with respect to, and no delay in
2 exercising, any right, power or remedy under the Contract shall operate as a waiver thereof.
3

4 XIV. NON-WAIVER AND FUTURE DEFAULT
5

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7
8
9

10 XV. LAWS, REGULATIONS AND ORDERS
11

- 12 1. Compliance: The Contract and the respective rights and obligations of the parties hereto are subject to all present and
13 future valid laws, orders, rules and regulations of any competent legislative body, or duly constituted authority now or
14 hereafter having jurisdiction and the Contract shall be varied and amended to comply with or conform to any valid order
15 or direction of any board, tribunal or administrative agency which affects any of the provisions of the Contract.
16
- 17 2. Law of Contract: Union and Shipper agree that the Contract is made in the Province of Ontario and that, subject to
18 Article X, the courts of the Province of Ontario shall have exclusive jurisdiction in all matters contained herein. The
19 parties further agree the Contract shall be construed exclusively in accordance with the laws of the Province of Ontario.
20
21

22 XVI. LIMITATION OF LIABILITY
23

24 The liability of the parties hereunder is limited to direct damages only and all other remedies or damages are waived. In no event
25 shall either party be liable for consequential, incidental, punitive, or indirect damages, in tort, contract or otherwise.
26
27

28 XVII. MAINTENANCE OR CONSTRUCTION
29

30 Union's facilities from time to time may require maintenance or construction. If such maintenance or construction is required,
31 and in Union's sole opinion, acting reasonably, such maintenance or construction may impact Union's ability to meet Shipper's
32 requirements, Union shall provide at least ten (10) days notice to Shipper, except in the case of an emergency. In the event the
33 maintenance impacts Union's ability to meet Shipper's requirements, Union shall not be liable for any damages and shall not be
34 deemed to be in breach of the Contract.
35

36 To the extent that Union's ability to accept and/or deliver Shippers gas is impaired, the monthly demand charge shall be reduced
37 in accordance with Article XI.
38

39 Union shall use reasonable efforts to determine a mutually acceptable period during which such maintenance or construction will
40 occur and also limit the extent and duration of any impairments. Union will endeavour to schedule and complete the
41 maintenance and construction which would normally be expected to impact on Union's ability to meet Shipper's requirements,
42 during the period from April 1 through to November 1.
43

44 XVIII. NOTICES
45

46 All communications provided for or permitted hereunder shall be in writing, personally delivered to an officer or other responsible
47 employee of the addressee or sent by registered mail, charges prepaid, or by facsimile or other means of recorded
48 telecommunication, charges prepaid, to the applicable address set forth in Section 11.01 of the Contract, or to such other
49 address as either party hereto may from time to time designate to the other in such manner, or as may be otherwise agreed in
50 writing, provided that no communication shall be sent by mail pending any threatened, or during any actual, postal strike or other
51 disruption of the postal service. Any communication personally delivered shall be deemed to have been validly and effectively
52 received on the date of such delivery. Any communication so sent by facsimile or other means of telecommunication shall be
53 deemed to have been validly and effectively received on the business day following the day on which it is sent. Any
54 communication so sent by mail shall be deemed to have been validly and effectively received on the seventh business day
55 following the day on which it is postmarked.
56

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1 Notwithstanding the above, nominations shall be made by facsimile or other recorded electronic means, subject to execution of
2 the "Agreement for Use of the Secured Portion of Union Gas Limited's Website," or such other agreement, satisfactory to Union,
3 and will be deemed to be received on the same day and same time as sent. Each party may from time to time change its
4 address for the purpose of this Article by giving notice of such change to the other party in accordance with this Article.
5

6
7 **XIX FACILITY CONSTRUCTION**

8
9 Intentionally Blank

10
11
12 **XX. RENEWAL OF CONTRACT**

13
14 Intentionally Blank

15
16
17 **XXI. ASSIGNMENT**

18
19 For Transportation Services only:

- 20
21 1. Permanent Assignment: These provisions shall only apply to Transportation Services: Shipper may assign the
22 Contract to a third party ("Assignee"), up to the Contract Demand, as defined in Section 5.01 of the Contract, (the
23 "Capacity Assigned"). Such assignment shall require the prior written consent of Union and release of obligations by
24 Union for the Capacity Assigned from the date of assignment. Such consent and release shall not be unreasonably
25 withheld and shall be conditional upon the Assignee, providing, among other things, financial assurances as per
26 Section 3.01 of the Contract. Any such assignment will be for the full rights, obligations and remaining term of the
27 Contract as relates to the Capacity Assigned.
28
- 29 2. Temporary Assignment: These provisions shall only apply to Transportation Services: Shipper may, upon prior written
30 notice to Union, assign all or a part of its service entitlement under the Contract (the "Assigned Quantity") and the
31 corresponding rights and obligations to an Assignee on a temporary basis for not less than one calendar month.
32 Notwithstanding such assignment, Shipper shall remain obligated to Union to perform and observe the covenants and
33 obligations contained herein in regard to the Assigned Quantity to the extent that Assignee fails to do so.
34

35 For Storage Services only:

- 36
37 3. Assignment: These provisions shall only apply to Storage Services: Shipper may not assign the Contract without the
38 written consent of Union, the approval of the OEB, and any financial assurances as required by Union. Should Union
39 consent to the assignment, Union will apply for OEB approval with all costs of the application to be paid by Shipper.
40

41 For Interruptible Service Hub Contracts only:

- 42
43 4. Assignment: These provisions shall only apply to Interruptible Service Hub Contracts: Shipper may not assign the
44 Contract.
45

46
47 **XXII SHIPPER'S OBLIGATIONS**

- 48
49 1. Nominations: Services provided hereunder shall be in accordance with the prescribed nominations procedure as set
50 out in Schedule B herein.
51
- 52 2. Shipper's Warranty: Shipper warrants that it will, if required, maintain, or have maintained on its behalf, all external
53 approvals including the governmental, regulatory, import/export permits, and other approvals or authorizations that are
54 required from any federal, state, or provincial authorities for gas quantities handled under the Contract. Shipper further
55 warrants that it shall maintain in effect the Facilitating Agreements (as such term is defined in the Contract).
56

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- 1 3. Financial Representations: Shipper represents and warrants that the financial assurances (including the Initial
2 Financial Assurances and Security) (if any) shall remain in place throughout the term hereof, unless Shipper and Union
3 agree otherwise. Shipper shall notify Union in the event of any changes to the financial assurances throughout the
4 term hereof. Should Union have reasonable grounds to believe that Shipper will not be able to perform or continue to
5 perform any of its obligations under the Contract as a result of one of the following events ("Material Event"):
6
- 7 a. Shipper is in default, which default has not been remedied, of the Contract or is in default of any other
8 material contract with Union or another party; or,
 - 9
 - 10 b. Shipper's corporate or debt rating falls below investment grade according to at least one of the nationally
11 recognized rating agencies; or,
 - 12
 - 13 c. Shipper ceases to be rated by a nationally recognized agency; or,
 - 14
 - 15 d. Such other events as may be agreed to by the parties in the Contract; or
 - 16
 - 17 e. Shipper has exceeded its available credit limit, as determined by Union from time to time,
 - 18

19 Then Shipper shall within fourteen (14) days of receipt of such written notice by Union, obtain and provide to Union a
20 letter of credit or other security in the form and amount reasonably required by Union (the "Security"). In the event that
21 Shipper does not provide to Union such Security within such fourteen (14) day period, Union may deem a default under
22 the Default and Termination provisions of Section XII of the General Terms & Conditions.
23

24 In the event that Shipper in good faith, reasonably believes that it should be entitled to reduce the amount of or value
25 of the Security previously provided, it may request such a reduction from Union and to the extent that the Material
26 Event has been mitigated or eliminated, Union shall return all or a portion of the Security to Shipper within fourteen
27 (14) business days after receipt of the request.

28
29
30
31 XXIII. MISCELLANEOUS PROVISIONS
32

- 33 1. Industry Usage: Words, phrases or expressions which are not defined herein and which, in the usage or custom of the
34 business of the transportation, storage, and distribution or sale of natural gas have an accepted meaning shall have
35 that meaning.
36
- 37 2. Extended Meaning: Unless the context otherwise requires, words importing the singular include the plural and vice
38 versa, and words importing gender include all genders. The words "herein" and "hereunder" and words of similar
39 import refer to the entirety of the Contract, including the Schedules incorporated into the Contract, and not only to the
40 Section in which such use occurs.
41
- 42 3. Conflict: In the event of any conflict between the provisions of the Contract and Union's C1 Schedule, the provisions of
43 Union's C1 Rate Schedule shall prevail over the provisions of the Contract.
44
- 45 4. Measurements: Units set out in SI (metric) measurement are the governing units for the purpose of the Contract.
46 Units set out in Imperial measurement in parentheses beside their SI (metric) equivalent are for reference only and in
47 the event of a conflict between SI (metric) and Imperial measurement herein, SI (metric) shall prevail.
48
- 49 5. Currency: All reference to dollars in the Contract shall mean Canadian dollars.
50
- 51 6. Time of Essence: Time shall be of the essence hereof.
52
- 53 7. Counterparts: The Contract may be executed in any number of counterparts, each of which when so executed shall be
54 deemed to be an original, but all of which together shall constitute one and the same instrument. The Contract may be

1 executed by facsimile.
2

- 3 8. Severability: If any provision hereof is invalid or unenforceable in any jurisdiction, to the fullest extent permitted by law,
4 (a) the other provisions hereof shall remain in full force and effect in such jurisdiction and shall be construed in order to
5 carry out the intention of the parties as nearly as possible and (b) the invalidity or unenforceability of any provision
6 hereof in any jurisdiction shall not affect the validity or enforceability of any provision in any other jurisdiction.
7

8 XXIV. STORAGE SERVICE PROVISIONS
9

- 10 1. Termination: These provisions shall only apply to Storage Services: Shipper's Storage Account is to be zero as of the
11 Termination Date. It is Shipper's responsibility to schedule its deliveries to ensure that Shipper's Storage Account is
12 zero on the Termination Date, except in the event that a force majeure, as provided for in Article XI hereof and where
13 reasonably proven, has prevented delivery of quantities by Union to Shipper such that the Shipper could not
14 reasonably comply with this provision. Any gas remaining in Shipper's Storage Account as of the Termination Date,
15 subject to other agreement of the parties hereto, shall be immediately forfeited to Union without further recourse.

1 **APPENDIX L - RATE C1**

2 **SCHEDULE "B" - NOMINATIONS**

3 a) For Services provided either under this rate schedule or referenced to this rate schedule:

4
5 i) For Services required on any day Shipper shall provide Union with a nomination (the "Shipper's Nomination") of the
6 quantity it desires to be handled at the applicable Receipt Point and/or Delivery Point. Such Shipper's Nomination is to be
7 provided in writing so as to be received by Union's Gas Management Services on or before 1230 hours in the Eastern time
8 zone, unless agreed to otherwise in writing by the parties, on the business day immediately preceding the day for which
9 service is requested.

10
11 ii) If, in Union's sole opinion, operating conditions permit, a change in Shipper's Nomination may be accepted after 1230
12 hours in the Eastern time zone.

13
14 b) Union shall determine whether or not all or any portion of Shipper's Nomination will be accepted. In the event Union
15 determines that it will not accept such nomination, Union shall advise Shipper, on or before 1730 hours in the Eastern time zone on
16 the business day immediately preceding the day for which service is requested, of the reduced quantity (the "Quantity Available") for
17 Services at the applicable points. Forthwith after receiving such advice from Union but no later than 1800 hours in the Eastern time
18 zone on the same day, Shipper shall provide a "Revised Nomination" to Union which shall be no greater than the Quantity Available.
19 If such Revised Nomination is not provided within the time allowed as required above or such Revised Nomination is greater than
20 the Quantity Available, then the Revised Nomination shall be deemed to be the Quantity Available. If the Revised Nomination
21 (delivered within the time allowed as required above) is less than the Quantity Available, then such lesser amount shall be the
22 Revised Nomination.

23
24 c) That portion of a Shipper's Nomination or Revised Nomination, as set out in (a) and (b), above, which Union shall accept for
25 Services hereunder, shall be known as Shipper's "Authorized Quantity".

26
27 d) Authorized Overrun shall mean:

28 (i) For Transportation Services, the amount by which Shipper's Authorized Quantity exceeds the Contract Demand
29 as defined in the Contract.

30 (ii) For Storage Services, the amount by which Shipper's Authorized Quantity exceeds the Injection Demand or
31 Withdrawal Demand (the "Daily Quantity") as defined in the Contract.

32
33 e) Where requests for interruptible Services hereunder exceed the capacity available for such Services, Union will accept
34 nominations from shippers and allocate capacity based on the Services contracted, pricing for Services and prior quantities
35 moved, and shippers shall be so advised. Any interruptible services provided herein are subordinate to any and all firm services
36 supplied by Union.

37
38 f) Union reserves the right to change its procedures for sharing interruptible capacity and will provide Shipper with two (2)
39 months prior notice of any such change.

40
41
42 g) If on any day the actual quantities handled by Union, for each of the Services authorized, exceed Shipper's Authorized
43 Quantity, and such excess was caused by either Shipper's incorrect nomination or by its delivering or receiving too much gas, then
44 the amount by which the actual quantities handled for each of the Services exceed Shipper's Authorized Quantity, such excess shall
45 be deemed "Unauthorized Overrun".

46
47 h) The daily quantity of gas nominated by Shipper will be delivered by Shipper at rates of flow that are as nearly constant as
48 possible, however, Union shall use reasonable efforts to take receipt of gas on any day at an hourly rate of flow up to one twentieth
49 (1/20) of the quantity received for that day. Union shall have the right to limit Services when on any day the cumulative hourly
50 imbalance between receipts and deliveries exceeds one twentieth (1/20) of the quantity handled for that day, for each applicable
51 Service.

52
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1 i) A nomination for a daily quantity of gas on any day shall remain in effect and apply to subsequent days unless and until
2 Union receives a new nomination from the Shipper or unless Union gives Shipper written notice that it is not acceptable in
3 accordance with either (a) or (b) of this schedule.
4

5 j) Except for periods of gas or quantity balancing as provided in the Contract, nominations by Shipper for deliveries to Union
6 and redeliveries by Union shall be the same delivery of gas by Union either to Shipper or a Shipper's Account with Union.
7
8

9 k) Where Shipper's nomination for any day has been accepted by Union and it is subsequently determined that Shipper's
10 Storage Balance had exceeded either the Maximum Storage Balance (the "Excess Storage Balance") or withdrawn a quantity of gas
11 in excess of its quantities in Shipper's Storage Balance (the "Drafted Storage Balance"), Shipper agrees to take immediate steps to
12 rectify this situation within ten (10) days of notice of such by Union. Should Shipper fail to obtain a zero (0) Excess Storage Balance
13 or Drafted Storage Balance, as the case may be, during that ten (10) day period, then Union shall automatically extend the period of
14 time from the day that such balance should have been brought to zero (0) for an "Extension Period" or additional Extension Period(s)
15 (as may be required), of up to ten (10) days each, at rates and under terms as set out in paragraph l) following. During any
16 Extension period, Shipper shall use due diligence to either take delivery of the Excess Storage Balance gas quantities from or return
17 the Drafted Storage Balance gas quantities to Union promptly.
18

19 l) The charges payable on all quantities in the Shipper's Excess Storage Balance or Drafted Storage Balance, and for any
20 quantities outstanding at the start of an Extension Period, will be equal to either the C1 Overrun of Maximum Storage Balance Rates
21 or Drafted Storage Balance Rates, as the case may be, and shall be calculated from the first day that either of these accounts
22 become utilized. Union, during any Extension Period, may upon forty-eight (48) hours verbal notice to Shipper (to be followed in
23 writing), either take possession of Shipper's gas in storage (which shall be immediately forfeited to Union without further recourse),
24 or replace the outstanding gas at Shipper's expense (which will include all costs to replace such gas, plus a charge equal to 25% of
25 such cost).
26

27 m) The parties hereto recognize that with respect to Section 5.01 of the Contract, on any day, receipts of gas by Union
28 and deliveries of gas by Union may not always be exactly equal, but each party shall cooperate with the other in order to balance
29 as nearly as possible the quantities transacted on a daily basis, and any imbalances arising shall be allocated to Shipper's
30 Limited Balancing Agreement or the Balancing Service pursuant to Shipper's Interruptible Service Hub Contract, and shall be
31 subject to the respective terms and charges contained therein, and shall be resolved in a timely manner.
32

1 **APPENDIX L- RATE C1**

2 **SCHEDULE "C" - POINTS**

3
4 The following defines each Receipt Point:

5
6 **DAWN (TCPL):** At the junction of Union's and TCPL's facilities, at or adjacent to Dawn (Facilities).

7
8 **DAWN (FACILITIES):** Union's Compressor Station site situated in the northwest corner of Lot Twenty-Five (25),
9 Concession II, in the Township of Dawn-Euphemia, in the County of Lambton. This point
10 is applicable for quantities of gas that have been previously transported or stored under
11 other contracts that Shipper may have in place with Union.
12

13 **DAWN (TECUMSEH):** At the junction of Union's and Tecumseh Gas Storage's, a division of Enbridge Gas
14 Distribution Inc. ("Enbridge") facilities, at or adjacent to Dawn (Facilities).
15

16 **DAWN (VECTOR):** At the junction of Union's and Vector Pipeline Limited Partnership ("Vector") facilities, at
17 or adjacent to Dawn (Facilities).
18

19 **DAWN:** Dawn shall mean all or any of Dawn (TCPL), Dawn (Facilities), Dawn (Tecumseh) and
20 Dawn (Vector) unless otherwise specified.
21

22 **PARKWAY:** At the junction of Union's and TCPL's facilities, at or adjacent to Union's facilities situated
23 in the Part Lot 9 and Part Lot 10, Concession IX, New Survey, Town of Milton, Regional
24 Municipality of Halton.
25

26 **KIRKWALL:** At the junction of Union's and TCPL's facilities at or adjacent to Union's facilities situated
27 in Part Lot twenty-Five (25), Concession 7, Town of Flamborough.
28

29 **OJIBWAY:** At the junction of Union's and Panhandle Eastern Pipeline Company's ("Panhandle")
30 facilities, through two existing twelve inch diameter pipelines that extend across the
31 Detroit River from Windsor, Ontario to River Rouge, Michigan.
32

33 **ST. CLAIR:** At the junction of Michigan Consolidated Gas Company's ("MichCon") and St. Clair
34 Pipelines (1996) Ltd.'s facilities, located at the international border between Canada and
35 the United States in the St. Clair River.
36

37 **BLUEWATER:** At the junction of Bluewater Gas Storage, LLC ("Bluewater") and
38 St. Clair Pipelines (1996) Ltd.'s facilities, located at the international
39 border between Canada and the United States in the St. Clair River.
40
41
42
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51

1
2 The following defines each Delivery Point:
3

- 4 DAWN (TCPL): At the junction of Union's and TCPL's facilities, at or adjacent to Dawn (Facilities).
5
6 DAWN (FACILITIES): Union's Compressor Station site situated in the northwest corner of Lot Twenty-Five (25),
7 Concession II, in the Township of Dawn-Euphemia, in the County of Lambton. This point
8 is applicable for quantities of gas that have been previously transported or stored under
9 other contracts that Shipper may have in place with Union.
10
11 DAWN (TECUMSEH): At the junction of Union's and Enbridge's facilities, at or adjacent to Dawn (Facilities).
12
13 DAWN (VECTOR): At the junction of Union's and Vector's facilities, at or adjacent to Dawn (Facilities).
14
15 DAWN: Dawn shall mean all or any of Dawn (TCPL), Dawn (Facilities), Dawn (Tecumseh) and
16 Dawn (Vector) unless otherwise specified.
17
18 PARKWAY: At the junction of Union's and TCPL's facilities, at or adjacent to Union's facilities situated
19 in the Part Lot 9 and Part Lot 10, Concession IX, New Survey, Town of Milton, Regional
20 Municipality of Halton.
21
22 KIRKWALL: At the junction of Union's and TCPL's facilities at or adjacent to Union's facilities situated
23 in Part Lot Twenty-Five (25), Concession 7, Town of Flamborough.
24
25 OJIBWAY: At the junction of Union's and Panhandle's facilities, through two existing twelve inch
26 diameter pipelines that extend across the Detroit River from Windsor, Ontario to River
27 Rouge, Michigan.
28
29 ST. CLAIR: At the junction of MichCon's and St. Clair Pipelines (1996) Ltd.'s facilities, located at the
30 international border between Canada and the United States in the St. Clair River.
31
32 BLUEWATER: At the junction of Bluewater's and St. Clair Pipelines (1996) Ltd.'s facilities, located at the
33 international border between Canada and the United States in the St. Clair River.
34

35 The following defines each Exchange Point:
36 Any point, as mutually agreed upon, shall have the definition as per the appropriate Transporter's tariff.

1 **APPENDIX M – PROPOSED RATE C1**

2 **SCHEDULE B - NOMINATIONS**

3
4
5 a) For Services provided either under this rate schedule or referenced to this rate schedule:

6
7 i) For Services required on any day Shipper shall provide Union with a nomination (the "Shipper's Nomination") of the
8 quantity it desires to be handled at the applicable Receipt Point and/or Delivery Point. Such Shipper's Nomination is to be
9 provided in writing so as to be received by Union's Gas Management Services on or before 1230 hours in the Eastern time
10 zone, unless agreed to otherwise in writing by the parties, on the business day immediately preceding the day for which
11 service is requested.

12
13 ii) If, in Union's sole opinion, operating conditions permit, a change in Shipper's Nomination may be accepted after 1230
14 hours in the Eastern time zone.

15
16 iii) For customers electing firm all day transportation or storage service, nominations shall be provided to Union's Gas
17 Management Services as outlined in the Contract.

18
19 b) Union shall determine whether or not all or any portion of Shipper's Nomination will be accepted. In the event Union
20 determines that it will not accept such nomination, Union shall advise Shipper, on or before 1730 hours in the Eastern time zone on
21 the business day immediately preceding the day for which service is requested, of the reduced quantity (the "Quantity Available") for
22 Services at the applicable points. Forthwith after receiving such advice from Union but no later than 1800 hours in the Eastern time
23 zone on the same day, Shipper shall provide a "Revised Nomination" to Union which shall be no greater than the Quantity Available.
24 If such Revised Nomination is not provided within the time allowed as required above or such Revised Nomination is greater than
25 the Quantity Available, then the Revised Nomination shall be deemed to be the Quantity Available. If the Revised Nomination
26 (delivered within the time allowed as required above) is less than the Quantity Available, then such lesser amount shall be the
27 Revised Nomination.

28
29 c) That portion of a Shipper's Nomination or Revised Nomination, as set out in (a) and (b), above, which Union shall accept for
30 Services hereunder, shall be known as Shipper's "Authorized Quantity".

31
32 d) Authorized Overrun shall mean:

33 (i) For Transportation Services, the amount by which Shipper's Authorized Quantity exceeds the Contract Demand
34 as defined in the Contract.

35 (ii) For Storage Services, the amount by which Shipper's Authorized Quantity exceeds the Injection Demand or
36 Withdrawal Demand (the "Daily Quantity") as defined in the Contract.

37
38 e) Where requests for interruptible Services hereunder exceed the capacity available for such Services, Union will accept
39 nominations from shippers and allocate capacity based on the Services contracted, pricing for Services and prior quantities
40 moved, and shippers shall be so advised. Any interruptible services provided herein are subordinate to any and all firm services
41 supplied by Union.

42
43 f) Union reserves the right to change its procedures for sharing interruptible capacity and will provide Shipper with two (2)
44 months prior notice of any such change.

45
46
47 g) If on any day the actual quantities handled by Union, for each of the Services authorized, exceed Shipper's Authorized
48 Quantity, and such excess was caused by either Shipper's incorrect nomination or by its delivering or receiving too much gas, then
49 the amount by which the actual quantities handled for each of the Services exceed Shipper's Authorized Quantity, such excess shall
50 be deemed "Unauthorized Overrun".

51
March 20, 2006

1 h) The daily quantity of gas nominated by Shipper will be delivered by Shipper at rates of flow that are as nearly constant as
2 possible, however, Union shall use reasonable efforts to take receipt of gas on any day at an hourly rate of flow up to one twentieth
3 (1/20) of the quantity received for that day. Union shall have the right to limit Services when on any day the cumulative hourly
4 imbalance between receipts and deliveries exceeds one twentieth (1/20) of the quantity handled for that day, for each applicable
5 Service.

6
7 i) A nomination for a daily quantity of gas on any day shall remain in effect and apply to subsequent days unless and until
8 Union receives a new nomination from the Shipper or unless Union gives Shipper written notice that it is not acceptable in
9 accordance with either (a) or (b) of this schedule.

10
11 j) Except for periods of gas or quantity balancing as provided in the Contract, nominations by Shipper for deliveries to Union
12 and redeliveries by Union shall be the same delivery of gas by Union either to Shipper or a Shipper's Account with Union.
13
14

15 k) Where Shipper's nomination for any day has been accepted by Union and it is subsequently determined that Shipper's
16 Storage Balance had exceeded either the Maximum Storage Balance (the "Excess Storage Balance") or withdrawn a quantity of gas
17 in excess of its quantities in Shipper's Storage Balance (the "Drafted Storage Balance"), Shipper agrees to take immediate steps to
18 rectify this situation within ten (10) days of notice of such by Union. Should Shipper fail to obtain a zero (0) Excess Storage Balance
19 or Drafted Storage Balance, as the case may be, during that ten (10) day period, then Union shall automatically extend the period of
20 time from the day that such balance should have been brought to zero (0) for an "Extension Period" or additional Extension Period(s)
21 (as may be required), of up to ten (10) days each, at rates and under terms as set out in paragraph l) following. During any
22 Extension period, Shipper shall use due diligence to either take delivery of the Excess Storage Balance gas quantities from or return
23 the Drafted Storage Balance gas quantities to Union promptly.
24

25 l) The charges payable on all quantities in the Shipper's Excess Storage Balance or Drafted Storage Balance, and for any
26 quantities outstanding at the start of an Extension Period, will be equal to either the C1 Overrun of Maximum Storage Balance Rates
27 or Drafted Storage Balance Rates, as the case may be, and shall be calculated from the first day that either of these accounts
28 become utilized. Union, during any Extension Period, may upon forty-eight (48) hours verbal notice to Shipper (to be followed in
29 writing), either take possession of Shipper's gas in storage (which shall be immediately forfeited to Union without further recourse),
30 or replace the outstanding gas at Shipper's expense (which will include all costs to replace such gas, plus a charge equal to 25% of
31 such cost).
32

33 m) The parties hereto recognize that with respect to Section 5.01 of the Contract, on any day, receipts of gas by Union
34 and deliveries of gas by Union may not always be exactly equal, but each party shall cooperate with the other in order to balance
35 as nearly as possible the quantities transacted on a daily basis, and any imbalances arising shall be allocated to Shipper's
36 Limited Balancing Agreement or the Balancing Service pursuant to Shipper's Interruptible Service Hub Contract, and shall be
37 subject to the respective terms and charges contained therein, and shall be resolved in a timely manner.
38

39 n) Notwithstanding h), for customers electing firm all day transportation or storage services, Union is not obligated to receive or
40 deliver gas at an hourly rate in excess of the Shipper's Maximum Hourly Contracted Demand.
41
42

1 **APPENDIX N – PROPOSED RATE M12**

2 **TRANSPORTATION RATES**

3
4 (A) **Applicability**

5
6 The charges under this schedule shall be applicable to a Shipper who enters into a Transportation Service Contract with
7 Union.

8
9 (B) **Services**

10
11 Transportation service under this rate schedule shall be for transportation on Union's Dawn – Oakville facilities.

12
13 (C) **Rates**

14
15 The identified rates represent maximum prices for service. These rates may change periodically. Multi-year prices may
16 also be negotiated, which may be higher than the identified rates.
17

	Monthly Demand Charge (applied to daily contract demand) Rate/GJ	If Union supplies fuel Commodity Charge Rate/GJ	Commodity and Fuel Charges		Commodity Charge Rate/GJ
			Fuel Ratio %	If Shipper supplies fuel AND	
<u>Firm Transportation (1)</u>					
Dawn to Oakville/Parkway (6)	\$2.334		Monthly fuel rates and ratios shall be in accordance with schedule "C".		
Dawn to Kirkwall (6)	\$1.968				
Parkway to Dawn	n/a				
<u>Limited Firm/Interruptible Transportation (1)</u>					
Dawn to Parkway – Maximum	\$5.602		Monthly fuel rates and ratios shall be in accordance with Schedule "C".		
Dawn to Kirkwall – Maximum	\$5.602				
Parkway (TCPL) to Parkway (Cons) (2)		n/a	0.35%		n/a
<u>Dehydration (3)</u>					
Tecumseh Dehydration	\$0.045	\$0.001	n/a		\$0.001

Authorized Overrun (4)

Authorized overrun rates will be payable on all quantities in excess of Union's obligation on any day. The overrun charges payable will be calculated at the following rates. Overrun will be authorized at Union's sole discretion.

	If Union supplies fuel Commodity Charge Rate/GJ	Commodity and Fuel Charges		Commodity Charge Rate/GJ
		Fuel Ratio %	If Shipper supplies fuel AND	
<u>Transportation Overrun</u>				
Dawn to Parkway		Monthly fuel rates and ratios shall be in accordance with schedule "C".		\$0.077
Dawn to Kirkwall				\$0.065
Parkway to Dawn				\$0.077
Parkway (TCPL) Overrun (5)	n/a	0.92%		n/a
<u>Dehydration (3)</u>				
Tecumseh Dehydration	\$0.003	n/a		\$0.003

18
19

1 (C) Rates (cont'd)

2
3 Unauthorized Overrun (4)

4
5 Authorized Overrun rates will be payable on all quantities up to 2% in excess of Union's contractual obligation.

6
7 The Unauthorized Overrun rate shall be the higher of the reported daily spot price of gas at either Dawn, Parkway,
8 Niagara or Iroquois in the month of or the month following the month in which the overrun occurred plus 25% for all
9 usage on any day in excess of 102% of Union's contractual obligation.

10
11 Nomination Variances

12
13 Where Union and the shipper have entered into a Limited Balancing Agreement ("LBA"), the rate for unauthorized
14 parking or drafting which results from nomination variances shall equal the "Balancing Fee" rate as described under
15 Article XXII of TransCanada PipeLines Transportation Tariff.

16
17 Notes for Section (C) Rates:

- 18 (1) The annual transportation commodity charge is calculated by application of the YCRR Formula, as per Section
19 (D). The annual transportation fuel required is calculated by application of the YCR Formula, as per Section (D).
20
21 (2) This rate is for westerly transportation within the Parkway yard, from Parkway (TCPL) to Parkway (Cons) or
22 Lisgar.
23
24 (3) Monthly dehydration demand charges on this schedule are only applicable to the Enbridge/Tecumseh storage
25 facility. Commodity charges are applicable to all quantities withdrawn from the Enbridge/Tecumseh storage
26 facility on any day that Union's Dawn dehydrator unit is in operation.
27
28 (4) For purposes of applying the YCRR Formula or YCR Formula (Section (D)) to transportation overrun quantities,
29 the transportation commodity revenue will be deemed to be equal to the commodity charge of the applicable
30 service as detailed in Section (B).
31
32 (5) This ratio will be applied to all gas quantities for which Union is obligated to deliver to Parkway (Cons) or Lisgar
33 and has agreed to deliver to Parkway (TCPL) on an interruptible basis. This will be in addition to any rate or ratio
34 paid for transportation easterly to Parkway (Cons) or Lisgar.
35
36 (6) A demand charge of \$0.571/GJ/day will be applicable for customers contracting for firm all day transportation
37 service in addition to the demand charges appearing on this schedule for firm transportation service to either
38 Kirkwall or Parkway.
39

40 (D) Transportation Commodity

41
42 The annual fuel charge in kind or in dollars for transportation service in any contract year shall be equal to the sum of
43 the application of the following equation applied monthly for the 12 months April through March (The "YCRR" or "YCR"
44 Formula). An appropriate adjustment in the fuel charges will be made in May for the previous 12 months ending March
45 31st to obtain the annual fuel charges as calculated using the applicable "YCRR" or "YCR" Formula. At Union's sole
46 discretion Union may make more frequent adjustments than once per year. The YCCR and YCR adjustments must be
47 paid/remitted to/from Shippers at Dawn within one billing cycle after invoicing.
48

49
50
$$\text{YCR} = \sum_1^4 [(0.003505 \times (\text{QT1} + \text{QT3})) + (\text{DSFx}(\text{QT1} + \text{QT3})) + \text{F}_{\text{ST}}] \text{ For June 1 to Sept. 30}$$

51
52 plus

53
54
$$\sum_5^{12} [(0.003505 \times (\text{QT1} + \text{Q3})) + (\text{DWFxQT1}) + \text{F}_{\text{WT}}] \text{ For Oct. 1 to May 31}$$

1
2 YCRR = $\sum_1^4 [(0.003505 \times (QT1 + QT3)) + (DSF \times (QT1 + QT3)) + F_{ST}] \times R$ For June 1 to Sept. 30
3
4

5 plus

6 $\sum_5^{12} [(0.003505 \times (QT1 + Q3)) + (DWF \times QT1) + F_{WT}] \times R$ For Oct. 1 to May 31
7
8
9

10 where: DSF = 0.00000 for Dawn summer fuel requirements
11 DWF = 0.0020 for Dawn winter fuel requirements
12

13 in which:

14
15 YCR Yearly Commodity Required

16
17 The sum of 12 separate monthly calculations of Commodity Quantities required for the period from April through
18 March.

19
20 YCRR Yearly Commodity Revenue Required

21
22 The sum of 12 separate monthly calculations of Commodity Revenue required for the period April through March.

23
24 QT1 Monthly quantities in GJ transported easterly hereunder received at Dawn at not less than 4 850 kPa but less than 5
25 860 kPa (compression required at Dawn).

26
27 QT3 Monthly quantities in GJ transported westerly hereunder received at the Parkway (Oakville) Delivery Point.

28
29 F_{WT} The individual Shipper's monthly share of compressor fuel used in GJ which was required at Union's Lobo, Bright,
30 Trafalgar and Parkway Compressor Stations ("Lobo", "Bright", "Trafalgar" and "Parkway") to transport the same Shipper's
31 QT1 monthly quantities easterly.

32
33 Lobo, Bright, Trafalgar and Parkway compressor fuel required by each Shipper will be calculated each month.

34
35 The monthly Lobo and Bright compressor fuel will be allocated to each Shipper in the same proportion as the Shipper's
36 monthly quantities transported is to the monthly transported quantity for all users including Union.

37
38 The monthly Parkway and Trafalgar compressor fuel used will be allocated to each Shipper in the same proportion as the
39 monthly quantity transported to Parkway (TCPL) for each user is to the total monthly quantity transported for all users
40 including Union.

41
42 F_{ST} The individual Shipper's monthly share of compressor fuel used in GJ which was required at Union's Lobo, Bright,
43 Trafalgar and Parkway compressor stations to transport the same Shipper's quantity on the Trafalgar system.

44
45 Lobo, Bright, Trafalgar and Parkway compressor fuel required by each Shipper will be calculated each month.

46
47 R Union's weighted average cost of gas in \$/GJ.
48

- 1 Notes
2 (i) In the case of Easterly flow, direct deliveries by TCPL at Parkway to Union or on behalf of Union to Union's Storage
3 and Transportation Shippers will be allocated to supply Union's markets on the Dawn-Oakville/Parkway facilities
4 starting at Parkway and proceeding westerly to successive laterals until exhausted.
5
6
7 (E) Provision for Compressor Fuel
8 For a Shipper that has elected to provide its own compressor fuel.
9
10 Transportation Fuel
11 On a daily basis, the Shipper will provide Union at the delivery point and delivery pressure as specified in the contract,
12 a quantity (the "Transportation Fuel Quantity") representing the Shipper's share of compressor fuel and unaccounted
13 for gas for transportation service on Union's system.
14
15 The Transportation Fuel Quantity will be determined on a daily basis, as follows:
16
17
$$\text{Transportation Fuel Quantity} = \text{Transportation Quantity} \times \text{Transportation Fuel Ratio}.$$

18
19 In the event that the actual quantity of fuel supplied by the Shipper was different from the actual fuel quantity as
20 calculated using the YCR formula, an adjustment will be made in May for the previous 12 months ending March 31st.
21
22 Nominations
23 The Shipper will be required to nominate its Transportation Fuel Quantity in addition to its normal nominations for
24 transportation services.
25
26 (F) Terms of Service
27 The General Terms & Conditions applicable to this rate schedule shall be in accordance with the attached Schedule
28 "A".
29
30 (G) Nominations
31
32 Nominations under this rate schedule shall be in accordance with the attached Schedule "B".
33
34 (H) Monthly Fuel Rates and Ratios
35
36 Monthly fuel rates and ratios under this rate schedule shall be in accordance with Schedule "C".
37
38 (I) Receipt and Delivery Points
39
40 Receipt and Delivery Points under this rate schedule shall be in accordance with the attached Schedule "D".
41
42

1 **APPENDIX O – DERIVATION OF M12**

2

UNION GAS LIMITED
Southern Operations Area
Calculation of Firm All Day Transportation Service Charges

Line No.	Particulars	(\$ 000's)
	<u>Rate Base (1)</u>	
1	Total rate base	1,636
	<u>Cost of Service</u>	
2	Operating & Maintenance Costs (2)	1,035
3	Depreciation Expense	468
4	Return, Income and Capital Taxes	<u>209</u>
5	Total Cost of Service	<u><u>1,712</u></u>
6	Demand (GJ's/day) (3)	250,000
7	Rate per GJ ((line 5 * 1000) / (line 6 *12))	0.571
8	Commoditized cost (\$/GJ) (line 7 *12 /365)	0.019

Notes: (1) Based on first full year in service.
(2) Assumes 10 staff at \$94,538 each per EB-2005-0520 Exhibit D3, Tab 7,
Schedule 2, line 7 and additional compressor maintenance.
(3) Assumes 50% of available capacity is contracted.

3